TECHNOLOGY DEPT.

ISSUED EVERY MONDAY AT 450 W. FORT ST., DETROIT 26, MICHIGAN. ESTABLISHED 1926.

AIR CONDITIONING & REFRIGERATION News

THE NEWSPAPER OF THE INDUSTRY

Vol. 62, No. 3 Serial No. 1157 — May 21, 1951 — Subscription Price, $5 Per Year

Reentered as second-class matter October 3, 1936 at the post office at Detroit, Michigan, under the Act of March 3, 1879.
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PUBLIC LIBRARY MAY 22 1951 DET

INSIDE DOPE

by GEORGE F. TAUBENECK

Doctor Stories
Fast Retort
Other Kinds of Doctors
Tit for Tat
Specialization
Connubial Observation
Maybe They Were Lucky
Patient's Progress
Psychology
Impatience
Inevitability
Cause for Alarm
Same Old Thing
Doctor's Duty
Dubious Compliment
Temper, Temper
Braggart
Free Circulation Is Suspicioned
Parapsychology
Good Business
Practical Practitioners
Logical Conclusion
Candid But Not Candied

Doctor Stories

At 11 p.m. Dr. James Carey answered a knock on the door of his home.

"Is Dr. Carey in?" anxioused a young man. "I need to see him at once."

"I am Dr. Carey. What can I do for you?"

The lad paused uncertainly.

"There must be some mistake," he stammered. "The preacher—er, Dr. Carey of the Central Methodist Church—is older and er. . . ."

"Oh," laughed the physician, "you must be thinking of my brother. He's the Dr. who preaches. I'm the one that practices."

Fast Retort

"Mind you," critiqued Dr. Abernathee at a cocktail party, "I don't really believe that lawyers are crooked, necessarily. However, the legal profession rarely turns men into angels."

"You're so right, doctor," agreed an attorney in the group. "Your profession does that much better than ours."

Other Kinds of Doctors

Political economist Stephen Leacock, Ph.D., is best remembered as an irrepressible wit and raconteur. Take the time he was voyaging to France over the stormy Atlantic. As he used to tell the story, there was a frantic pounding on the door of his stateroom, and he admitted a distraught cabin boy.

"Please, sir, our ship's doctor is out like a light . . . (puff, puff). . . . We searched the registration list for doctors and found your name . . . (more labored breathing and heavy panting). . . . Would you please come up to Suite A, sir? . . . (puff, puff) . . . French actress there wants a doctor to examine her legs."

Leacock dashed thither with alacrity.

"Another Dr. beat me there," he recalled, sadly. "This speedboy was a Doctor of Divinity."

Tit for Tat

Routed out of bed at 3 a.m. by a famous portrait painter, Dr. Blank drove twelve miles through a blinding snowstorm. Imagine his concealed rage when his patient turned out to be the artist's distempered dog!

Biding his time, but seething all the while, the physician eventually asked the painter to come to his home for a special job. Naturally the artist assumed he would portrait either the doctor or his wife—for a fat fee—and he arrived loaded down with canvas, oils, brushes, and palettes.

The doctor met him at the front door.

"See that door?" he grimaced. "Paint it white."

Specialization

Overheard in the lobby of a hotel where a medical association was convening:

"Doctor, we think the girls in our

(Concluded on Page 7, Column 1)

Stainless Steel Lack Worries Exhibitors At Restaurant Show

CHICAGO—A wide variety of refrigeration and air conditioning products took the spotlight among the record-breaking number of exhibits at the National Restaurant Show here May 7-11, but some of the exhibitors of refrigerators were worried by the shadow of material shortages—especially that of stainless steel.

Many restaurant, cafeteria, and institutional kitchen operators like stainless steel fixtures in their establishments. But nickel-bearing stainless steel, which is most corrosion-resistant, is becoming more scarce daily, and the National Production Authority has issued a statement that end-use restrictions may be imposed on nickel-bearing stainless steel.

First pictures of equipment shown at the National Restaurant Show appear on pages 17 and 18 of this issue. Other pictures will follow in a later issue.

Some substituting of chrome-alloyed stainless steel, which does

(Concluded on Page 21, Column 2)

Dealers Advised on CPR 7 Procedures

WASHINGTON, D. C.—A modification of Ceiling Price Regulation 7 that would exempt retailers doing an annual volume of less than $100,000 in the items covered by the regulation from the necessity of making out pricing charts was reported to be under consideration by the Office of Price Stabilization.

These retailers (including those handling small appliances and housewares) would have the choice of retaining their ceilings under the General Ceiling Price Regulation or switching to the margin-type control of CPR 7.

Until such a change is made, however, it would be wise for affected retailers to prepare their pricing charts for submittal before the May 30 deadline. Failure to file the chart by May 30 would prevent them from selling items covered by the regulation until the chart is filed.

In a memo to its members, the In-

(Concluded on Page 4, Column 3)

N. Y. Guild Contends Licensing Proposal Illegal, Inadequate

NEW YORK CITY — A recently-introduced bill which would require that mechanical refrigerator servicemen pass Civil Service examinations and be certified by the commissioner of housing and buildings drew sharp criticism from the Refrigeration & Air Conditioning Guild, Inc.

In a five-page press release signed by its president, John J. Santoro, the guild said the bill "does not go far enough nor . . . in the right direction," "will not help relieve the evil intended to be cured as regards those now in the business," and cannot be enforced.

The group further contended that one section of the measure is "illegal and unconstitutional" and that requirements for experience are "entirely inadequate." Said the guild:

(Concluded on Page 4, Column 4)

FRB Turns Down Plea To Relax Reg. W Terms

Indicate Tighter Credit Controls Due Soon; More Items May Be Restricted

WASHINGTON, D. C.—Any hopes that retailers may have for an easing of instalment sales credit restrictions appeared to be dashed last week when the Federal Reserve Board denied an appeal from the television industry.

Television manufacturers, through the Radio-Television Manufacturers Association, had pointed to a decline of television sales over a number of weeks and cited the tight credit restrictions as a dominant cause. They asked an easing of the down payment to 15% or inclusion of the trade-in in the down payment.

The Federal Reserve Board, however, expressed doubt that Regulation W was the dominant cause for the decline. It pointed to such other factors as a temporary saturation of the market because of the phenomenal expansion of the industry, and the withholding of purchases by consumers in expectation of price cuts, or the imminence of ultra-high frequency TV.

FRB concluded, "Insofar as Regulation W is not the cause of the reduction in sales, a relaxation of the requirements of the regulation could not reasonably be expected to solve the problem."

RTMA, after receiving this ruling, appointed a committee to carry the fight for easier credit terms to Congress.

Meanwhile, William Martin, Jr., chairman of the Board of Governors of the Federal Reserve System told the Senate banking committee that the board had no plans right now to either tighten or relax credit controls.

On the other hand, both Senator Burnet R. Maybank, chairman of the Senate banking committee, and Economic Stabilizer Eric Johnston have indicated recently that tighter credit controls will probably come soon. Johnston agreed with the suggestion that this might mean bringing more items under Regulation W.

House Committee Moves To Shelve Excise Tax Boost

WASHINGTON, D. C.—Rejecting a Treasury Department proposal that the Federal manufacturers' excise tax on refrigerators, home freezers, air conditioners, and electric, gas, and oil appliances be raised to 25%, the House Ways and Means Committee last week voted to leave the rate unchanged at 10%.

But the committee voted to add several items to the list of appliances subject to the 10% tax. These include dishwashers, clothes driers, garbage disposal units, electric dehumidifiers, electric ice cream freezers, and belt-driven household fans, among others.

The committee also approved an increase of 5% in the tax on television sets, radios, phonographs, and phonograph records. Such a boost would raise the tax on these items to 15%.

Bringing the new items under the 10% tax would result in a revenue gain of $40 million, the committee estimated. An additional $55 million would be raised by boosting the tax on television and radio sets, it was figured.

In other actions, the committee turned down proposed taxes on washing machines, vacuum cleaners, sewing machines, and all types of household furniture and floor coverings.

All these actions were tentative and could be changed, since final committee decisions were yet to be made.

Big Unit Makers Get New Special Priority

WASHINGTON, D. C. — The National Production Authority has issued effective May 14 order M-61 to provide a procedure whereby manufacturers of refrigeration and air conditioning equipment (except packaged room coolers) and manufacturers of refrigerating and air conditioning compressors and condensing units may obtain necessary materials to provide for increased production during the third quarter or until the Controlled Materials Plan

(Concluded on Back Page, Column 1)

CPR 34 Controls Service Charges In New Setup

Little Change Expected In Ceilings Because Same Base Period Applies

WASHINGTON, D. C. — Service operations in the refrigeration, air conditioning, and appliance fields now have their prices controlled by Ceiling Price Regulation 34 rather than the General Ceiling Price Regulation.

The new regulation took effect on May 16. It requires that a statement of ceiling prices, rates, or pricing methods be prepared and kept and a duplicate filed with the local district office of the Office of Price Stabilization by June 15.

Service operators, however, will probably find that their new price ceilings are the same as those they previously established under the GCPR. If this is so, the service operator must file a duplicate of his statement of ceiling prices that he previously prepared under the GCPR.

Little, if any, change in ceilings is expected largely because the base period for CPR 34 is the same as that for the GCPR, namely, Dec. 19, 1950, to Jan. 25, 1951. Ceiling prices are the highest at which the service was delivered or offered for delivery during this period.

However, a provision has been added to permit persons offering seasonal services to charge the highest price they charged during the 1950 season, if that service was not offered during the base period.

If it was offered during the base period, their price should reflect their customary dollar differential between that season and the base

(Concluded on Page 21, Column 1)

Plans Set for ASRE Spring Meeting In Detroit, May 27-30

DETROIT—Three technical sessions and a conference on the application of motors to hermetic units will highlight the engineering aspects of the 38th spring meeting of the American Society of Refrigerating Engineers to be held at the Statler hotel here May 27 through 30, Sunday through Wednesday.

In addition several entertainment features and inspection trips have been programmed. The annual ASRE golf tournament will be held Tuesday afternoon at the Grosse Ile Country Club.

George Romney, vice president of Nash-Kelvinator Corp. will address the welcome luncheon to be held Monday, May 28, talking on "The Job Ahead." And following the

(Concluded on Back Page, Column 2)

Detroit Considers Converting Water Heaters To Store Fresh Water After Atomic Attack

DETROIT—A plan to convert all domestic hot water heaters into emergency sources of fresh water supply in case of atom bomb attack or other such eventuality is being worked out by the department of buildings and safety engineering for the city of Detroit.

Approval and pledges of cooperation have been sought and received from every refrigeration and air conditioning association in the city contacted by the department as well as from organizations of plumbers, steamfitters, electricians, sprinkler fitters, boiler installers, and heating and ventilating men.

The plan has also been approved by the Detroit civil defense shelter and safety engineering executive committee. Right now, high level talks are going on between the bureau of safety engineering and the city's water board to iron out objections raised by the water board.

When agreement has been reached at this level, the plan is ready to get under way.

The plan, as originally suggested by the civil defense shelter and safety engineering executive committee, is basically this:

Every home and nearly every occupied building is equipped with a hot water storage tank of some sort, generally of 30 gals. capacity or larger. This would be enough to provide a week's supply of fresh water for the average family if rationed carefully.

Each of these tanks is equipped with a shut-off valve on the cold water branch leading to the tank. They are also equipped with a drain, or a sediment cock.

The water in these tanks is heated by various types of heating equipment, all of which can be shut off safely, provided the proper procedure in the operation of the controls is followed.

To instruct the public how to safely conserve the water stored in these tanks, the contractors, tradesmen, and servicemen familiar with pipe fitting and utilities have been enlisted. These are estimated to

(Concluded on Back Page, Column 3)

Seattle Studies B9 Code And Licensing Provision

SEATTLE—Proposed refrigeration code now being considered by the city of Seattle would adopt the ASA-B9 safety code and require licensing of contractors, "service shops," and journeymen, plus the registration of apprentices.

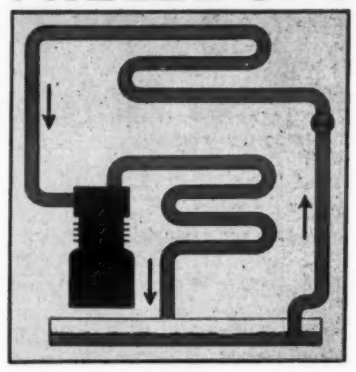
The code has been up before the city council for hearings, although the latest hearing scheduled for May 8 was postponed for approximately two weeks.

To qualify for a contractor's license the applicant, "or some qualified person in the employ of the applicant" would have to have three years' experience in the installation, construction, repair, alteration, and/or servicing of refrigerating systems immediately preceding the date of his application.

Licenses as "contractors" would be issued to "all firms who deal in commercial refrigeration, the definition of commercial refrigeration being any unit containing 6 lbs. or more of any Group 1, 2, or 3 gases, and actuated by a motor or engine having a standard rating of ¼ hp.

(Concluded on Page 5, Column 1)

CLEARS UP FREEZE-UPS



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Connecting Bakery Display Case Boosts Sales from Two Refrigerated Fixtures

LINCOLN, Neb.—How a connecting fixture for display of bakery products increased sales from two refrigerated vending fixtures over 20% was revealed by Anthony Messineo, co-owner of the Cornhusker Market here. In addition, bakery sales jumped over 400%.

The market originally was constructed with an offset about halfway back, leaving a square corner which the management found difficult to incorporate into an effective floor traffic plan. The meat department was placed at the rear with a triple-deck open case for dairy products adjoining one end. Around the offset and some 30 ft. distant was the self-service frozen food case along with an ice cream cabinet. Customers tended to neglect the ice cream and frozen foods as they headed for the meat department at the rear.

Bread and bakery products originally were handled in a section of a center island. Many patrons asked where the bread was kept, so Messineo conceived the idea of building a special display fixture for bakery products connecting frozen foods with the dairy case and serving to bring traffic consistently around the offset.

The new fixture curves around the corner and provides about 25 lineal feet for bakery products plus five feet for potato chips and kindred packaged items. The semi-circular fixture is constructed in pyramid style, larger at the bottom and slanting to the top, with a series of seven shelves. The three top shelves are slanted for better display, and spotlights have been mounted on a floor column so that the fixture is immediately spotted by patrons from any place on the floor.

As a result of the new arrangement, Messineo stated, more people stop at the frozen food cases and shop around the fixture to the dairy case at the other end. Much of the traffic now flows around this fixture en route to the meat department, and sales from the self-service cases have increased some 20%.

At the same time, customers no longer ask the location of the bread section. Bread sales have more than doubled while volume in other bakery products is fully five times greater, the grocer declared. Much of the selling of cakes, cookies, and other pastries appears to be related to sales from the frozen food and ice cream cases, he added.

Calif. Bill Would License And Regulate Locker Firms

SACRAMENTO, Calif. — California's Assembly passed (May 2) and sent to the State Senate a bill to regulate and license frozen food locker businesses.

The measure was sponsored by Assemblyman Charles S. Gubser of Santa Clara county, who said it was needed for the protection of the public.

Official Cites Importance of Letter Of Transmittal with CMP-4B Form

DETROIT—No one can tell at this moment what products are going to be placed under the Controlled Materials Plan nor how much of the available steel, copper, and aluminum CMP programs are going to require, Courtney Johnson, director of the NPA's motor vehicle division, declared here recently.

Johnson spoke before a large audience of Detroit manufacturers in the first of a series of meetings now being held in principal cities. Purpose of the meetings is to explain CMP directly to businessmen and to answer their questions.

He declared that many products that will eventually go under CMP will not be subject to it on July 1. CMP will be applied product by product in a gradual process that may run into the fourth quarter before all programs are covered, he indicated.

In the main, he said, "A" products —war items generally—will be the first to feel the effects of CMP.

On the same program, Hardy M. Ray, chief of the educational branch of NPA's production controls staff, suggested that manufacturers submitting CMP-4B forms, write their letters of transmittal "as though they expected Mortimer Snerd to process their applications."

He pointed out that these letters play an extremely important part in the processing job and are referred to many times by the analysts. Therefore, they should contain very specific information to supplement data in the application forms.

He suggested particularly that the letters contain specific details on the products manufactured and the end use of the product to avoid possible confusion, details on variety of sizes and shapes of controlled materials required, "lead time" required, explanations of variations in production, and "honest" estimates of future production schedules, if actual schedules are not yet known.

He advised that manufacturers be careful to list their requirements by weight as required. Copper wire, for instance, should be listed in pounds, not in feet.

He also stated that if a manufacturer of a "B" product uses an "A" product (defined as a product using one of the controlled materials but not appearing on the "B" list) as a component in his own product, then he should also apply for the materials needed to make that component.

Makers of repair parts for any products whether they appear on the "B" list or not, should file a Form CMP-4B, he declared. These forms should be filed with NPA before May 31.

During the session, Johnson and Ray made these points:

1. During the third quarter, production schedules for programmed products are being determined after requirements are known. In later quarters, production schedules will be determined in advance by the Defense Production Administration which is the planning agency for the Office of Defense Mobilization.

2. Manufacturers of "B" products are required to refuse orders covering an authorized production schedule that is beyond their ability to produce. On the other hand, the manufacturer will not be asked to produce anything that he does not want to.

Ray explained that if the manufacturer receives a production schedule to make a certain item, he can return the allotment of controlled materials and state that he would prefer to operate on the "free" market. He commented that the manufacturer can do this, though he questioned the wisdom of doing it.

3. Manufacturers of "B" products who are granted production schedules and materials allotments will be able to produce all they can with the materials allotted plus those in their inventory. They will not be asked to produce a certain number of units.

4. If a manufacturer gets an allotment of materials larger than he can use, he is required to return them to his NPA industry division as soon as he knows that he will not be able to use them.

5. If a manufacturer is given a schedule that calls for less production than he was formerly turning out and an "excessive inventory of controlled materials results, he will be permitted to reduce that inventory gradually so as not to endanger his sources of supply.

6. Manufacturers will be supplied controlled materials as needed. Allocations will be made quarterly, but delivery schedules will have to be spaced according to their needs. Purpose is to require manufacturers to operate on a low inventory.

7. All manufacturers would be wise to compile a bill of materials showing exactly what and how much of each materials goes into every product, whether they expect that product to come under CMP or not.

Lucky Day

Store Visitors Registering On Pre-Selected Date Get Big Prizes

OMAHA, Neb. — A "Lucky Day" promotion has stimulated floor traffic in the Al Mahan Appliance Store here to 80 to 90 persons per day and increased sales about 25%.

Mahan was so pleased with the results of the month-long promotion that he immediately launched another the day the first one closed.

The promotion revolved around a pre-selected "Lucky Day," whose date was placed in a sealed envelope and deposited in a local bank. All persons who registered at the store on that date received prizes which included a television set, an electric drier, a washing machine, a gas range, and a number of gift certificates. The date was not revealed until the envelope was opened on the last day of the contest.

Mahan announced the promotion with a full page newspaper advertisement. For the duration of the contest, he followed up with full and quarter-page advertisements once or twice a week.

Mahan was particularly pleased with the results of the promotion because it stirred up a sluggish appliance business that had been dull for some time and brought greatly increased traffic to his store, which is some 30 blocks west of the main business district.

USE THE COUPON!
For "easy-to-get" product information . . . use coupon in the "Information Center" form.

Still
This GENERAL CASE is the BIGGEST VALUE in AMERICA!

Unconditionally Guaranteed
The General Refrigerators Corp. places its 23-Year old reputation behind this guarantee: If, on installation of the MM4 Ful-Vision Case, you find that it does not perform to your complete satisfaction, we will take it back without question, paying all return freight costs and REFUND YOUR MONEY IN FULL

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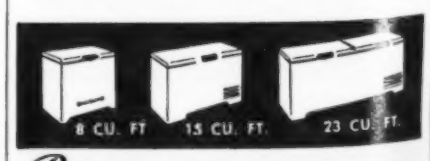

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Using Altered Window Units In Hospital Operating Rooms Enables Contractor To Comply with Detroit Safety Code

DETROIT—A practical method of complying with safety requirements for the installation of air conditioning in hospital operating rooms has been worked out by Victor M. Fabian, of Square Deal Refrigeration, Inc. here.

The Detroit safety code requires that equipment used in operating rooms be explosion-proof. If it is not explosion-proof, then it must be mounted at least 5 ft. above floor level.

When Fabian got the job of air conditioning two operating rooms and a delivery room at the Saratoga General hospital here, he worked closely with the city department of buildings and safety engineering in making the installations.

As each of these rooms was on a different floor, Fabian used window-type room coolers for the job. He put a 1-ton Frigidaire ARL 100 in each room. This model is powered by two ½-hp. Meter Miser compressors, using single-phase current.

"The conditioners were placed on window sills about 3 ft. above the floor," Fabian said. "The controls, capacitors, relays, etc., were removed from the cabinet and mounted on the wall above the 5-ft. safety level. Explosionproof wiring was used below the 5-ft. level.

"These Frigidaire air conditioners have insulated dividers across the entire cabinet, separating the compressor and condenser section from the cooling coil, filter, and recirculating air section.

"The fan motor, located in the compressor compartment, is of the double end type. A fan on one end cools the condenser, and a fan on the opposite end, which extends into the coil section, circulates room air and fresh air through the filter and over the coil.

"We replaced this steel blade fan with a non-ferrous aluminum blade. Sealing tightly around the cabinet and insulating the window fill-ins completed the installation for permanent year-round use.

"This type of setup cannot be beat for ease of installation, flexibility of use, and economy of operation," Fabian asserted.

The conditioners, he declared, are used only when the room is in use. They have an almost immediate effect. On cool days, only the fans are used to bring in fresh air. On mild days, one compressor is used, making the air conditioner a ½-ton unit.

On hot days, the second compressor gives a full ton of cooling. A room thermostat may be used if desired.

"Perhaps the most interesting feature of the whole job," Fabian recalled, "was the way in which the installation had to be made.

"Work could be done only when the rooms were not being used. This is between operations and deliveries. As it turned out, between 2 and 5 p.m. was the best time to work," he said.

Fabian would take no credit for selling the air conditioning. He said that the hospital principals had already sold themselves.

"Our part was to give them a means of solving their safety problem," he stated.

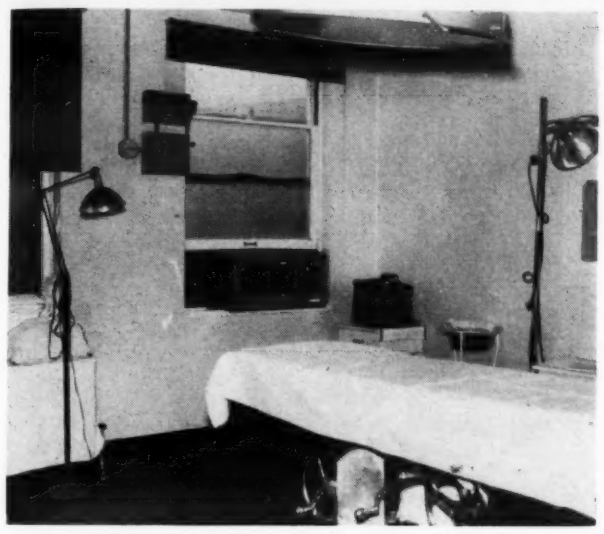

Photo indicates how contractor solved safety problems involved in air conditioning operating and delivery rooms at Saratoga General hospital, Detroit.

NPA Studies Allocations On Methyl Chloride as Demand Exceeds Output

WASHINGTON, D. C.—Producers of methyl chloride have been warned by the National Production Authority that the government agency may find it necessary to order the allocation of the chemical to conserve sufficient quantities for defense and defense supporting needs.

NPA officials told the Methyl Chloride Industry Advisory Committee that rapidly increasing use of the product is outdistancing production and that an allocation program may be necessary.

No decision on the question of the allocation program has been made at this time. If it becomes necessary it would probably be handled as a schedule to Order M-45, the basic order which provides the mechanism for allocation of scarce critical chemicals.

Methyl chloride is a well-known and widely used refrigerant, but its scarcity is being caused by its use in the manufacture of synthetic rubber. It is also used in the production of drugs and insecticides, it was pointed out.

NPA officials estimated that 1951 methyl chloride demand would exceed production by more than 5 million pounds.

Admiral Corp. Introduces $159.95 Table Model TV

—CHICAGO—Admiral Corp. has introduced a new television set priced at $159.95, the lowest ever offered by the company. In recent weeks the company's lowest price TV set had been a 16-in. table model priced at $199.95.

Richard A. Graver, vice president, said the new 14-in. table model has been put on the market "to bring TV back within the buying power of the majority of American wage earners."

He said that the customer's ability to buy more expensive models has been handicapped by the Regulation W restrictions placed on consumer credit.

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LOOK AT THE FAT MARKET FOR FEDDERS

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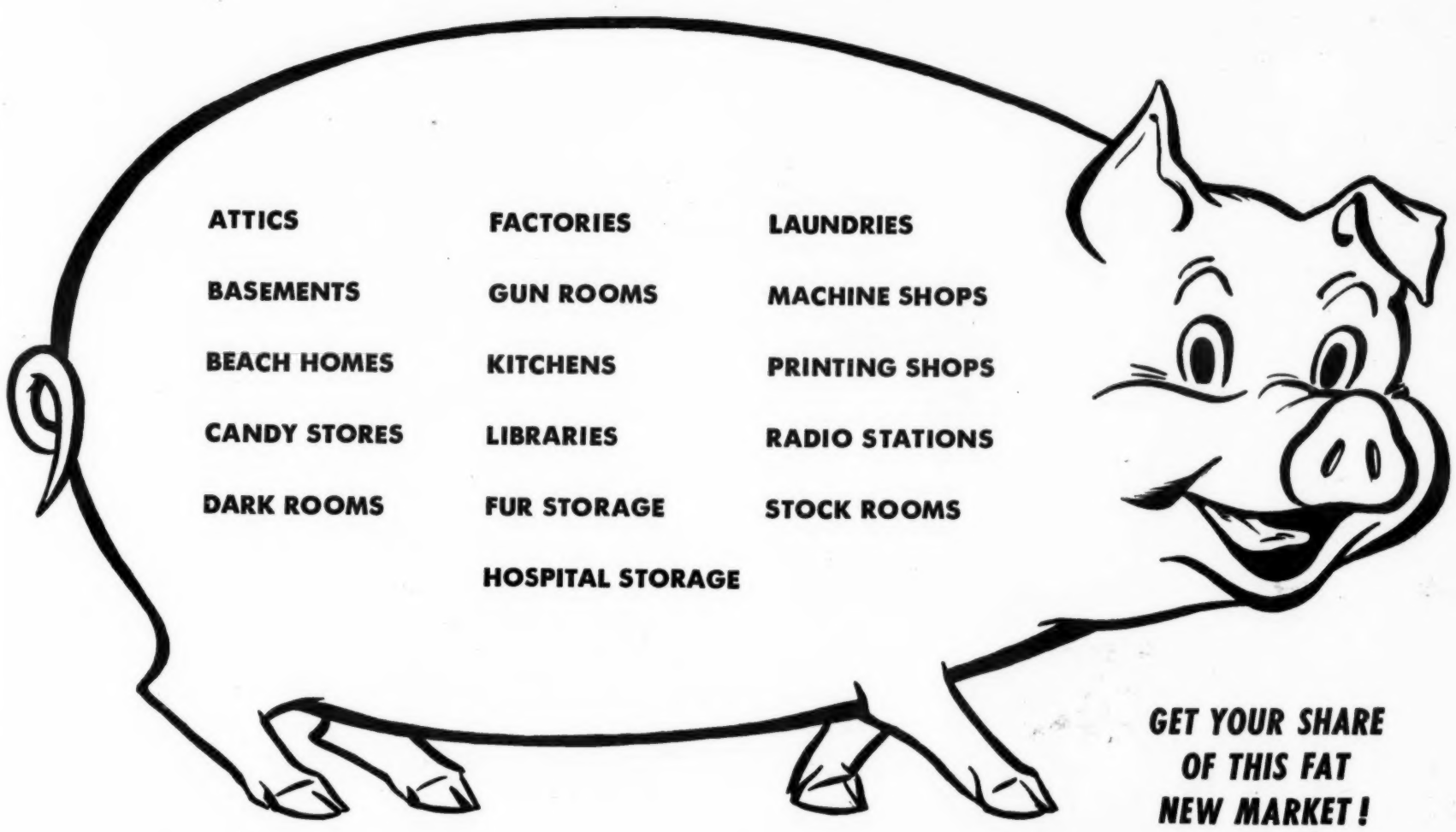

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Fedders Dehumidifier plugs in, goes to work drying out damp rooms, stopping damage from moisture. No service needed. Five year factory protection plan.

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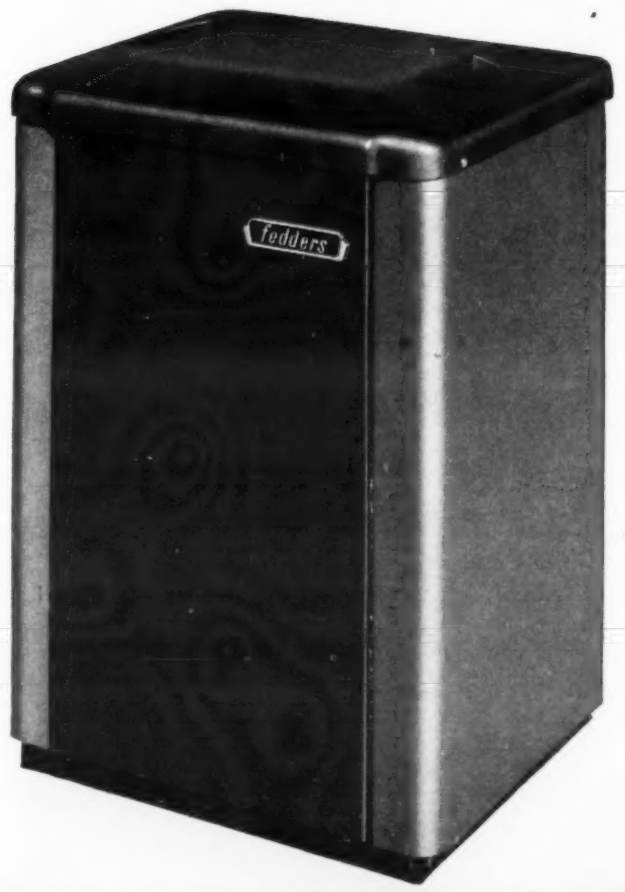

MAIL THIS COUPON TODAY!

Fedders-Quigan Corporation, Refrigeration Appliance Div., Dept. D-2, Buffalo 7, N.Y.

Gentlemen: Please send me complete information on how I can make extra profit selling the 1951 line of Fedders Dehumidifiers.

*Name*_____

*Company*_____

*Address*_____ *City*_____

*County*_____ *State*_____

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MITCHELL is better than ever in '51!
get your share of this big volume business

Ride the MITCHELL selling wave in 1951, with these exclusive advantages. Get set *right now* for profits—write today for complete details on the money-making MITCHELL dealership.

MITCHELL MFG. COMPANY
Chicago 14, Illinois
Makers of the World's Finest Room Air Conditioners

WRITE FOR THE PROFIT FACTS ACT NOW

MITCHELL MFG. COMPANY
2529 N. Clybourn Ave., Chicago 14, Ill.
Send me all the facts and quote me dealer prices at once on MITCHELL Room Air Conditioners

Dealer's Name_____
Address_____
City_____ State_____
By_____

CPR-7 Procedures--

(Concluded from Page 1, Column 2)

land Empire Electrical Dealers Association of Spokane, Wash., advised dealers to switch to CPR 7. Taking the option to stay under the GCPR, the memo said, "could be disastrous. It would prevent you from raising your prices in the future to cover inevitable increases in your costs of goods sold."

The memo listed these categories as particularly applicable to appliance dealers:

716-cabinets; 502-electric blankets; 851-floor lamps; 852 and 852A-table and desk lamps; 854-lamp shades and covers; 871-877-various types of radio and radio-phonograph combinations; 878-radio replacement parts; 890-895-record players and recorders; 905-power lawn mowers; 906-small electrical appliances; 908-general housewares, including door chimes, cooking utensils, appliance covers, and many others.

It noted that indoor and outdoor driers listed under category 908 do not cover electric driers.

Another point stressed in the memo concerned fair trade prices. It said this:

"CPR 7 provides an opportunity for manufacturers to price their products nationally if they have been accustomed to doing this through fair trade or recommended list prices.

"Each manufacturer must make application to the OPS in Washington. When the manufacturer is granted authority to establish retail ceiling prices, the invoices you receive from your wholesalers will be stamped to indicate the ceiling price established by the manufacturer under OPS authority.

"Without the evidence of such invoices on file in your store, you have no authority to price goods according to fair trade or recommended list prices if such prices are in excess of ceilings determined under CPR 7 or the GCPR.

"Do not proceed under the confident theory that your manufacturers or wholesalers will take care of everything for you. They cannot and will not get you in compliance with the price control regulations."

Meanwhile, in Washington, the industry advisory committee representing wholesalers of small consumer durable goods balked at the suggestion that they be controlled by pricing charts similar to those called for in CPR 7.

The committee reportedly preferred to use their historic markups and, where applicable, the manufacturers suggested wholesale price and discount.

The committee indicated that wholesalers are anxious to get out from under the GCPR, where they are being "squeezed into an impossible position," and under a CPR of their own.

N.Y.License Plan Hit--

(Concluded from Page 1, Column 2)

"The real remedy would be to license the contractor."

"The first thing wrong with this bill," the guild declared, "is that it applies only to domestic refrigerators which are simple in their operation, easy to understand, install, and repair.

"The bill has absolutely no application to commercial and industrial installations. Any danger which is supposedly inherent in the operation of a domestic refrigerator and which caused the introduction of the . . . bill must of necessity be also present in the operation of commercial and industrial refrigeration."

Continuing, the guild statement pointed out that "the license or qualification certificate (there is a dispute between the language in the title and the language in the section) deals only with domestic refrigeration, something that concerns itself with a maximum of only ¼-hp. machines, going as low as 1/14 hp.

"As a matter of fact, most domestic refrigerators which are being manufactured today are in the ⅛ hp. class. What has been disregarded are all the refrigeration machines of 1 hp., 3 hp., 5, 10, 20, and 100 hp.

"As can be readily seen, the larger the machine the greater the propensity for damage and injury if the machines are improperly installed or serviced.

"Let it be clearly stated now that any refrigeration machine, if properly installed, serviced, and maintained by a properly qualified contractor is not a dangerous instrument but is safer than most any other machine. The converse is true if an inexperienced, inefficient person handles it.

"A refrigeration contractor must know, among other things, electrical circuits, water pressures, gas pressures, chemistry, and all sorts of complicated mechanical controls. This can be proven by reading the Safety Code in the Administrative Code, Article 18, Section C19-96."

The guild also declared that the bill "will not help relieve the evil intended to be cured as regards those now in the business. It would be unconstitutional to deprive any person now servicing refrigerators from continuing his business."

It was further charged that "the section which deals with the repair of hermetically-sealed absorption types of refrigeration units wherein no one will be able to repair such units without procedures approved by the manufacturer is illegal and unconstitutional.

The proposed law, the statement went on, "requires qualification by each and every mechanic. Its major fault will, of course, lie in the inability of the city to enforce it. It would be manifestly impossible to supervise each and every mechanic.

"The real remedy would be to license the contractor who, because of his capital investment in his business, his inventory, the fact that he has a place of business, the many years that he has been engaged in creating goodwill for himself, could be easily supervised and what is more, would have a greater interest in seeing to it that the work done by his employe was in compliance with the provisions of the Safety Code."

"There should be provision in any licensing bill," the guild added, "that there be a Refrigeration Licensing Board composed of experts in the industry who can advise the Civil Service Commission as to the technical requirements necessary before a license is granted.

"This board should be an impartial one, limited to the consuming public, refrigeration contractors, refrigeration engineers, and a member of the department enforcing the licensing code. The license should require a very stiff written examination, practical examination, oral examination, character investigation, and proof of financial responsibility.

Anderson & Wagner Will Continue Production Despite Big Plant Fire

LOS ANGELES—Flames of undetermined origin on May 11 destroyed a portion of the Anderson & Wagner plant here, in which are manufactured Everfrost soda fountains, luncheonette, and drink dispensing equipment.

Evidently starting in the center of the south wing of the plant, the flames rapidly spread through this unit of the plant with the exception of the offices, destroying equipment and a portion of the finished fountain inventory.

The entire area affected by the flames was a relatively new addition to the Everfrost factory and had been in operation only about a year. A statement from Fred V. Wagner, president of Anderson & Wagner, Inc., indicates that while the fire caused heavy damage to the building and equipment, the loss was adequately covered by insurance and plans for rebuilding the factory are already under way.

"Production of Everfrost fountains and drink dispensing equipment will continue in the original Everfrost factory and we anticipate no interruption in scheduled deliveries of most products," stated Wagner.

Home Laundry Equipment Group Asks OPS Decision On 3 Pricing Problems

WASHINGTON, D. C. — Members of the Home Laundry Equipment Industry Advisory Committee have asked the Office of Price Stabilization for an early decision on three vital problems with which the industry is confronted in pricing under the manufacturers' Regulation CPR 22.

The committee recommended that an interim regulation be issued permitting the manufacturer to file suggested retail list prices based on historical markups and permit use of such list prices at the retail and wholesale levels. Members stated that the industry has operated over the years on the basis of published retail suggested list prices, with fixed discounts from the list prices to wholesalers and retailers.

The committee requested an early interpretation as to whether increased costs of conversion steel and warehouse steel can be used as increased materials cost where the manufacturer historically purchased a high percentage of his steel direct from the mill at lower prices during the base period.

Members pointed out that for some time past the industry has been forced to purchase a very high percentage of conversion steel and warehouse steel in order to obtain a supply. This has been due partially to substantial reductions in steel allocations at the mill, members said.

The committee recommended that the industry be permitted to average steel cost per pound during the base period as against the average cost per pound in the first quarter of 1950 and use the difference in cost as the increased material cost for steel. In this connection each member of the committee will submit to OPS detailed industry information indicating steel purchases and costs during the base period and during the first quarter of 1951.

The committee asked for a prompt interpretation as to whether tooling costs can be treated as material costs in determining ceiling prices. Members stated that tooling costs have been traditionally treated by the industry as materials production costs.

The meeting was conducted by W. C. Noll, chief, Appliance & Equipment Branch, OPS.

A COMPLETE LINE

The completeness of the Universal Cooler line (unmatched in the industry in sizes through 15 H.P.) is another advantage awaiting you wherever you see the Universal Cooler sign displayed across the nation. There is a type and size for the unusual applications as well as a wide selection of sizes for standard jobs.

A DEPENDABLE PRODUCT

Wide customer acceptance and Universal Cooler's good name in the industry are evidence of the dependability of products sold under the Universal Cooler name. Top quality condensing units are for sale wherever you see the Universal Cooler sign.

REPLACEMENT PARTS IN STOCK

Universal Cooler and its authorized wholesalers both recognize the importance of keeping replacement parts readily available for use in field servicing. Wherever you see the Universal Cooler sign, genuine Universal Cooler replacement parts are carried in stock.

A RELIABLE WHOLESALER

Wherever you see the Universal Cooler sign, you will find an experienced, reliable wholesaler, prepared to furnish responsible, competent attention to your needs. He and Universal Cooler work together closely to furnish unsurpassed products and services in his community. Look to him with confidence for Universal Cooler condensing units and genuine replacement parts.

UNIVERSAL COOLER DIVISION
TECUMSEH PRODUCTS CO., TECUMSEH, MICH.
MARION, OHIO
EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT 1, MICH.

Seattle Code Would License Service Shops

(Concluded from Page 1)

or more, or absorption systems having a rating of ¼ ton or more refrigeration effect."

There would be two classes of "contractor's" licenses under the proposed code:

Class A, for all machines using sulphur dioxide, methyl chloride, or any of the "Freons."

Class B, for all machines using all other refrigerants.

A combined Class A and B license would also be given to qualified firms permitting them to work on systems with any Group 1, 2, or 3 refrigerant.

Annual license fee would be $50 each for Class A and B, or $75 for a combined license.

SERVICE SHOP LICENSE

A "refrigeration service shop" license would be issued to firms "operating a refrigeration service business on machines having a standard rating of less than ¼ hp. and containing less than 6 lbs. of Group 1, 2, and 3 gases."

Annual fee for this class of license would be $25.

No license would be required for "industrial firms using refrigeration in their regular process of business and who are employing duly qualified 'refrigeration mechanics.' ". Such firms "may install, move, add to, alter, service, or make repairs on any of their own refrigeration equipment, on their own premises, without securing a license," states the proposed Seattle code.

CERTIFICATE OF COMPETENCY

To be employed as a "journeyman refrigeration mechanic" the individual would have to obtain a "certificate of competency" and a license. Annual license fee for journeymen would be $5. There is no statement in the code as it now stands regarding how much experience a "journeyman" must have.

The proposed code would permit a "welder" to "weld on work with and under the direct supervision of a duly licensed refrigeration mechanic."

Apprentices would be required to obtain a "certificate of registration as an apprentice refrigeration mechanic" from the examining and supervising board, under the code.

RULING ON APPRENTICES

"At the expiration of four years' service on such work as the board shall designate in addition to a minimum number of hours of instruction as outlined by the board, the apprentice shall be eligible to apply for a Journeyman Refrigeration Mechanic's certificate of competency," the proposed code states in its present form.

"All apprentices shall be registered in compliance of state and federal apprenticeship requirements. The apprentice mechanic shall work only under direct supervision of a certified and licensed journeyman refrigeration mechanic."

No fee would be required for apprentices.

The code also sets up requirements for "refrigeration operating engineers," defining this classification as "a person engaged on a full-time basis in the operation of a refrigeration plant of at least 25 hp. To qualify he must have at least one year's experience serving as an apprentice under the direction of an experienced refrigeration operating engineer."

PROPOSE INSTALLATION PERMIT

Permits for installation or alterations to refrigeration systems would be required by the code, expect for systems containing 6 lbs. or less of refrigerant.

Examining board that would be set up under the proposed code would consist of the commissioner of public health or his assistant, the chief refrigeration inspector, and the chief examiner of the civil service commission.

In addition, a three-man group consisting of one licensed "contractor," one licensed "service shop owner," and one licensed "journeyman" would constitute an "advisory committee" to the examining board for refrigeration licenses.

A $1,000 bond would have to be posted by applicants for licenses. It is assumed that this requirement applies to "contractors" and "service shop owners."

Still Very Exclusive

Department of Labor Issues Revised List Of Occupations Eligible for Deferment

WASHINGTON, D. C.—The U. S. Department of Labor has revised its list of "critical occupations" for use by the Defense Department in calling up reservists and National Guardsmen, and by draft boards for deciding on occupational deferments.

The classifications which might apply to personnel in this industry include:

"Engineer, professional (all branches)."

"Electronic technician."

"Instrument repairman."

"Maintenance mechanic, industrial."

If a worker has one of the critical jobs listed by the Labor Department and is also employed in one of the essential industries listed by the Department of Commerce, he qualifies for possible deferment. But he must fall into both these categories, and even then it is no guarantee that he will not be called for duty in the armed forces.

Secretary of Labor Maurice J. Tobin said that the department uses the following standards for deciding what should be on the new list:

"An 'over-all shortage' of workers in the occupation exists, or is developing, that will 'significantly interfere' with essential industries.

"A minimum accelerated training time of two years is required for satisfactory performance of the job."

The revised list, without definitions, follows:

Agronomist; aircraft and engine mechanics, (air transport and manufacturing); airplane navigator, commercial; airplane pilot; airways operations specialist; blacksmiths and hammersmiths; boilermaker; chemist; clinical psychologist; dentist; die setter; driller, petroleum; electrician, airplane; electronic technician; engineer draftsman, design; engineers, marine, chiefs and assistants.

Engineer, professional (all branches); entomologist; farm operators and assistants; foreman (critical occupations only); geologist; geophysicist; glass blower, laboratory apparatus; instrument repairman; lay-out man, marine; loftsman, machinist.

Maintenance mechanic, industrial; mathematician; metal miner, underground, all around; metal spinner; microbiologist (including bacteriologists); millwright; model maker; molder and coremaker; nurse, professional; oil well servicing technician; orthopedic appliance and limb technician; osteopath; parasitologist (plant or animal); patternmaker; pharmacologist; physician and surgeon; physicist; physiologist (plant or animal); plant pathologist; precision lens grinders and polishers; roller, iron and steel; sawsmith; ship rigger.

Shipfitter; shipmaster, ship pilot, and mates; stillman; teacher, college and vocational (critical occupations only); tool and die designer; tool and die maker; veterinarian.

Nevada Plumbing Firms Under U. S. Indictment

WASHINGTON, D. C.—Four corporations and nine individuals have been charged by the Justice Department with conspiracy to suppress and eliminate competition in the sale and distribution of plumbing and heating supplies in southern Nevada.

The department said the conspiracy was worked through the Las Vegas Merchant Plumbers Association and the Merchant Plumbers Exchange, Inc.

Hajoca Corp. Opens New Display Rooms In South

PHILADELPHIA — Hajoca Corp., manufacturer and distributor of plumbing, heating, industrial, and refrigeration supplies and equipment, has announced the opening of three new display rooms during May, one each at the Richmond and Danville, Va. branches, and one at the High Point, N. C. branch.

Formal opening celebrations were held at each location, at which local managers and branch personnel were hosts to Hajoca customers, prominent local city officials, and a group of top Hajoca executives from the general offices in Philadelphia.

Several other Hajoca branch display rooms are in the process of being renovated according to H. E. Tippett, vice president in charge of branch operations. He also announced the early completion of Hajoca's new and greatly enlarged warehouse and office building for the company's Asheville, N. C. branch.

Salesmen's Group Asks Protection Against Cuts

NEW YORK CITY—The National Council of Salesmen's Organizations, Inc. will soon ask the Economic Stabilization Agency to amend wage stabilization regulations so as to protect salesmen from unjust reductions in compensation.

Louis A. Capaldo, president of the group, said the regulations as now set up contain no provisions prohibiting indiscriminate cuts in rates of commission or change-over from commission to salary. He pointed out that wage stabilization regulations in effect during World War II banned such action by employers.

"Under these rulings," he stated, "it was illegal for an employer to reduce the compensation of any salesman or other non-administrative employe who earned $5,000 a year or less. Rates of commission could not be cut without first obtaining the approval of the Wage Stabilization Board.

"Also, without prior approval of the board, it was illegal to reduce compensation by changing over from commission to salary or vice versa. Salesmen who had their compensation reduced could demand reinstatement of former salary levels."

Capaldo pictured wholesale salesmen as in a "singularly vulnerable" position because they are not protected by the minimum provision of the Fair Labor Practice Act. He said the National Council is attempting to correct this through introduction of a bill to amend the act.

Capaldo said the government didn't make reasonable allowances for boosts in sales commissions.

Sell today's most popular carbonator!

THE NEW Liquid TRIPLE-ACTION Atomatic

Big Profits in it for You

Reasons Why the ATOMATIC is Tops in Performance . . . and so Simple to Service:

PUMP—Direct drive turbine. Pump and motor are contained in same compact housing. Stainless steel motor shaft is also the impeller shaft. No belts, gears or sprockets drive the pump.

CARBONATOR BODY is solid 16-gauge stainless steel. Welded fittings form single unit to withstand 1,000-lb. pressure.

WATER LEVEL CONTROL is positive action electrode type. Starts and stops the carbonator automatically.

CHECK VALVES—Two automatic, self-flushing valves prevent a back flow of gas into pump and water line. Two pumps mean double security.

COMPACT—Unit measures only 21¼" long x 13¼" wide—14¾" high. Small enough to fit under sink section of fountain.

BASE—16-gauge drawn bonderized steel with baked enamel finish. Resilient motor mounting minimizes vibration.

It's the sensation of the century—in fountains, restaurants, drive-ins, roadside stands all over this land! Every user is finding the new ATOMATIC carbonator to be the practical, low-cost answer to carbonation needs—better in every way... silent, compact, efficient, and with capacity to spare.

You can sell the ATOMATIC—this *newest* product of the world's largest soda fountain manufacturer. Liquid has a service-dealer arrangement for service men who can cash in on the big replacement market. Be posted . . . write for full information—and a copy of the complete service manual—both yours for the asking.

THE LIQUID CARBONIC CORPORATION
3110 South Kedzie Avenue, Chicago 23, Illinois

Get the Facts—MAIL COUPON TODAY!

THE LIQUID CARBONIC CORPORATION
3110 South Kedzie Ave., Chicago 23, Illinois

I would like to know about the new Atomatic Carbonator.

☐ Please send descriptive leaflet and Service Manual.

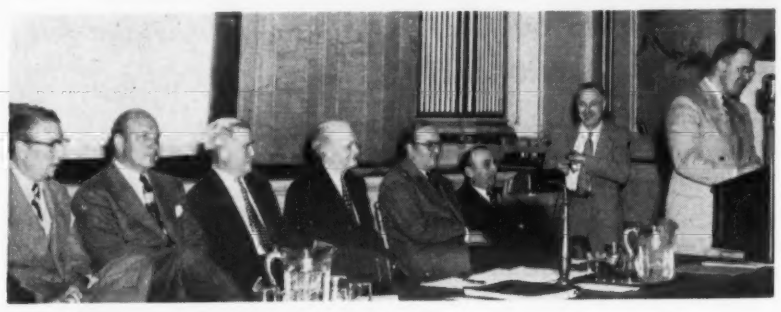
☐ Also send sales proposition.

*Name*_____

*Company*_____

*Address*_____

*Town*_____ *Zone*____ *State*_____



For Distinguished Service

PAST PRESIDENTS of the Refrigeration Equipment Manufacturers Assn. were presented with distinguished service awards at the recent meeting at The Homestead, Hot Springs, Va.

WHO'S WHO: (Seated from left to right) H. F. Hildreth, manager, refrigeration specialties department, Westinghouse Electric Corp., Springfield, Mass.; H. F. Spoehrer, president, Sporlan Valve Co., St. Louis, Mo.; E. M. Flannery, vice president, The Bush Mfg. Co., West Hartford, Conn.; R. H. Luscombe, general sales manager, Penn Electric Switch Co., Goshen, Ind.; K. B. Thorndike, vice president, Detroit Lubricator Co., Chicago, Ill.; and R. H. Israel, sales manager, Refrigeration Dept., Virginia Smelting Co., West Norfolk, Va. Standing are W. Vernon Brumbaugh, executive secretary of REMA, and W. A. Siegfried, president, Superior Valve & Fittings Co., Pittsburgh, Pa., newly elected president of REMA.

Fresh'nd-Aire Issues 2 Television Spot Films

CHICAGO—One minute sound TV spot films on two "Fresh'nd-Aire" appliances, the "Heaterette" and "Wall-Aire," are now available to retailers and department stores, states H. Hartmann, vice president of Fresh'nd-Aire Co. here, a division of Cory Corp.

The newly produced TV films are intended either for independent dealer time spots, or for use in conjunction with sponsored TV programs currently scheduled.

The TV Wall-Aire film highlights the four-in-one utility of this unit: the man of the house in a chilly bathroom switches on the Wall-Aire to enjoy the heat fanning into the room . . . girl admires the miracle fan action which whisks away steam from cloudy mirrors . . . woman opens hair drier attachment and settles down comfortably with a magazine . . . girl pulls down clothes drying rack of unit and demonstrates ease with which gentle heat dries baby clothes, hosiery, and other items. The film closes with an animated product identification and price listing.

Credit Use Is Theme of Dun & Bradstreet Film

CHICAGO—What is believed to be the first motion picture production on the function of credit has been produced for Dun & Bradstreet by Wilding Picture Productions, Inc.

This picture, available for free showings anywhere to groups using or interested in credit, is titled, "CREDIT — Man's Confidence In Man," with a screen time of approximately 33 minutes.

Human interest story treatment was selected in planning and producing this picture with the introductions of simple analogies to make clear the nature of credit, and credit-reporting procedure.

For details as to free showings of this new film, write to: Public Relations Department, Dun & Bradstreet, 290 Broadway, New York City, or any local Dun & Bradstreet office.

Pabst Smith Establishes Northern New Jersey Branch

LONG ISLAND CITY, N. Y.—Pabst Smith Co., Inc. here, manufacturer of the "P. S. Jr." refrigerator, has announced the establishment of Douglas Equipment Co., Caldwell, N. J., as its branch assembly, warehousing, sales, and delivery branch, serving the retailers of northern New Jersey.

D. A. Solley, branch manager, said demand for the 1-cu. ft. refrigerator resulted in this branch operation "to provide quick delivery to the direct factory authorized dealers in the seaboard area."

Pumping and Cooling System Claimed To Turn Garbage to Fertilizer In 28 Days

VESTABURG, Mich. — Now nearing completion in this central Michigan village is a new organic garbage disposal plant utilizing a thermostatically-controlled pumping and cooling system.

Officials of Michigan cities are keeping an eye on the project in view of the claim of the designer and developer—American Composter Co., Glen Ridge, N. J.—that it is "the real answer to the municipal garbage question."

The 50-ton-capacity pilot plant is a silo-like structure of rectangular concrete sections. The sections are drilled for proper aeration to hasten decomposition. Inside the plant are four 12-in. aeration pipes which help achieve proper air circulation.

SOIL BACTERIA ADDED

Decomposition is aided by adding beneficial soil bacteria to the pile of garbage and waste material. One pound of 100,000-count-per-cubic-centimeter of decomposition bacteria is added to each ton of garbage or organic material put in the plant.

Below the structure is a deep-well for collecting the moisture—normally 25% of garbage or waste material. The liquid is drawn up by the special pumping and cooling system and sprayed down through the compost to maintain proper temperature and prevent fires in the pile.

SPRAY DISCONTINUED

The process turns garbage into a humus fertilizer residue in 28 days. The spray is discontinued on the 22nd day.

The residue is a reddish-brown fine loam. Mixed with phosphate rock, it can be sold as a balanced organic plant food.

The liquid in the deep-well, which is drawn off into metal drums, can also be sold. It is used by nurseries and greenhouses as a plant spray.

American Composter Co. maintains that by selling this residue, a city can pay for the plant and its operation. The point is also made that garbage can be disposed of cleanly.

"Our plant can be operated within the city," said Ralph W. Riker, western division manager of the firm. "It is inexpensive to build and has no odor or smoke. And it returns to the soil all the natural elements taken from it in growth."

The composting plant units are operated in a rotating system. While certain units would be completing the decomposition cycle, workers would be filling others.

Units can be built in any tonnage capacity desired. The plant setup necessary to service a city of 60,000 could be handled by a crew of four men, it is estimated.

Burggrabe Heads Rheem Gas Refrigerator Development Plans

SOUTH GATE, Calif.—Henry A. Burggrabe has joined Rheem Mfg. Co. here to take charge of the Rheem household gas refrigerator development.

H. A. Burggrabe

Burggrabe's past associations have been with F. L. Jacobs Co. at Detroit in the capacity of assistant chief engineer on development of bottle vending machines; with Servel, Inc. in various positions on gas refrigeration unit and water heater development; and with Norge Division of Borg-Warner as development engineer. He has been a member of the American Society of Refrigerating Engineers since 1945.

NPA Limits Deliveries to International Nickel Co.

WASHINGTON, D. C.—Control of nickel at the source has been instituted by the National Production Authority, which has issued directives limiting deliveries to International Nickel Co., the country's sole producer.

May deliveries of the metal for civilian use are limited to 15% of each firm's average monthly use of the metal in the first half of 1950.

Deliveries during May for military use are to be held to 60% of the amount called for under defense-rated orders.

The remaining 25% of production for the month of May is to be reserved for distribution as NPA sees fit.

Until this new directive NPA had restricted the use of nickel by holding consumers to 65% of the average consumption in the first two quarters of 1950.

United
FOR Quality AND Economy

KOOLMASTER DIRECT DRAW
Engineered to serve beer to the "Brewmaster's" taste. Its smart appearance enhances any establishment. Choice of 8 models in Stainless steel or brown Dulux finish.

KUBEMASTER ICE CUBE MAKER
Whenever food or refreshment is served, ice cubes as you need them. Choice of 3 beautiful models.

REACH-INS
Modern flush fronts with recessed handles in popular sizes. Ten models to choose from. Available in white Dulux, stainless steel fronts and glass doors.

UPRIGHT FREEZER
15 Cubic Feet
Scientific placement of cooling coils, two separate food compartments, dual doors to minimize cold loss, insure balanced freezing at minimum cost.

DRY KOOL BOTTLE COOLER
World famous for performance and design. 14 models to meet all requirements in stainless steel or brown Dulux finish.

DESIGNED—ENGINEERED—MANUFACTURED By
UNITED REFRIGERATOR COMPANY
Locust and Walnut Sts.
HUDSON, WISCONSIN

TYPHOON
Specialists in Packaged AIR CONDITIONERS 1½ TO 20 TONS
Evaporative Condensers 3 TO 20 TONS
Backed by more than 40 years of air cooling experience
TYPHOON Air Conditioning Co., Inc.
794 Union Street, Brooklyn, N.Y.

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

fa[illegible]city have exceptionally nice leg[illegible]."

That so? Hadn't noticed. I'm a ch[illegible]st specialist."

Connubial Observation

"That was a mighty fancy young woman I saw you laughing and talking with downtown today," snifed a doctor's wife.

"Oh, she's just a girl I know professionally."

"Humph. Your profession, or hers?"

Maybe They Were Lucky

Vacationing in a Vermont hamlet, Prof. Charles A. Beard called daily at the post office for his mail. The postmaster noted that "Dr." was prefixed to the eminent historian's name on all the envelopes addressed to him.

"Be you a hoss doctor or a people doctor?" the postmaster curioused, peering over his spectacles.

"Neither, I'm a Doctor of Philosophy."

"M-m-m," mused the ruralist. "Don't recollect we ever had a case of that here."

Patient's Progress

"How is that young man in Room 202 getting along?" Dr. Schmaltz asked a new nurse. "Are you keeping a chart of his progress?"

"Not exactly," she giggled, "but you can look at my diary if you really want to know."

Psychology

Mr. Henpeck: "Doctor! How can I ever thank you? You've cured my wife of her nervous disposition. However did you do it on one call?"

Physician: "Psychology, old man, psychology. I simply told her that her nervousness was an indication of advancing age."

Impatience

"Doc, I'm gradually going crazy—about women."

"Hm-mm. And what do you expect me to do about that?"

"Can you speed it up?"

Inevitability

"Doctor," announced Mrs. Gadabout, "I'm sailing for Europe next week, and I'm so thrilled! However, I'm worried about one thing. What should I do if I get seasick?"

"Don't worry, you'll do it."

Cause for Alarm

Interviewing a doctor during the 1950 census, Cal Crewcut came to the question, "How many hours did you work last week?"

"Oh, I'd say about 72."

Cal was aghast. He not only showed it; he said so.

"Not unusual, my boy. Not unusual at all. I know half a dozen doctors who work longer hours than that every week in the year."

"Oh-h-h-h," groaned the census taker.

"What's the matter. Are you ill?"

"No, but I'm a pre-med student."

Same Old Thing

Fresh from internship, Dr. Dimwit hung his shingle right across the street from a big automobile assembly plant. To be specific, the street was Jefferson in Detroit, and it was the Chrysler plant his office fronted. Downstairs was a saloon which the factory "hands" jampacked during their lunch hour.

Three long days he watched droves of them leg it across Jefferson for their midday beers—disregarding traffic, life, and limb.

"Ah," he thought, "I've picked a good spot, especially since my specialty is bone fractures."

On the fourth day his first patient climbed the staircase and presented himself for treatment. He had no visible fracture.

"And what is your trouble, sir?" Dr. Dimwit smiled at the man in fuchsia slacks and chartreuse sportshirt.

Silently the fellow bared his chest. A skin disease, of a type never before seen by the young medico, marred its surface. Excusing himself, the doctor hurried backstage to consult a few tomes. None of them gave him a clue. Returning, he levelled a disapproving gaze at the factory "hand" and quizzed:

"Ever get this before?"

"Sure, Doc, lotsa times."

"Hm-m-m. Well, you got it again!"

Doctor's Duty

Well, well, if it isn't John Meek," greeted Dr. Pilltosser. "Would you mind giving your wife a message?"

"Why, shore."

"Tell her that the X-rays turned out fine. That little condition that she worried about is only natural for a woman of her advanced years."

"Not me, Doc," Mr. Meek passed the buck. "You tell her that yourself!"

Dubious Compliment

In the occupational therapy room of an asylum sat a little man knitting industriously. When a new superintendent entered the small fellow smiled shyly.

"We all like you a lot more than we did the last superintendent," he proffered.

"That's fine," was the pleased reply, "and why is that?"

"Oh, you seem so much more like us."

Temper, Temper

Mr. Hedstrong *really* was a difficult patient.

"You haven't followed my directions at all," his physician berated. "If you won't do as I say I'm going to send you to Dr. Flank."

"But he's a veterinary," ejaculated Mr. Hedstrong.

"Indeed he is," gritted the doc, "and he's used to dumb-oxen and jackasses."

Dr. Stuart Ward prepared to anesthetize a smart-aleck high school boy.

"Say, doc," whimpered the lad, "how long will it be until I come out of this and know what the score is?"

Reported Dr. Ward:

"Aren't you overestimating the after-effects of anesthesia?"

Braggart

Hubby was deaf as a post. Wifie wasn't feeling well. Enter the doctor.

The latter examined Wifie thoroughly, and discovered that she was three months "gone."

"Your wife is pregnant," announced the doctor.

"Eh? How's that again?"

"I say, your wife will present you with a baby," shouted the doctor.

"You ain't tellin' me no news," grinned Hubby. "She's shore had plenty opportunities."

Free Circulation Is Suspicioned

Many states send mobile X-ray units around the countryside to give free chest examinations. Operator of one such truck remembered the face of a woman who'd been through his trailer-unit quite recently.

"Madam," he expostulated, "I think we've taken care of you."

"No you haven't," she snapped. "You've X-rayed me three times and I don't feel a bit better."

Parapsychology

Every year for eighteen years Dr. Hardesty delivered a baby to Mrs. Phekoond.

"Aren't you getting a little tired of this childbearing?" he hinted, delicately.

"Not me, Doc," demurred the indefatigible mother. "Can't let my youngest kid get spoiled. Besides, it's the only rest from housework I get all year."

Good Business

"What?!!" exclaimed Mrs. Pennypincher. "Forty dollars for curing a case of measles?"

"Please remember," the doctor chided gently, "that I called at your home six times while your daughter was ill."

"So what? She infected half the kids in her third grade class, didn't she?"

Practical Practitioners

Plague of all doctors is the something-for-nothing-urge of women who meet them socially.

"Doctor," they're likely to whinny, "what should I do for my allergy?"

A well-heeled medico in Detroit foils these female barnacles by suggesting that they undress so he can examine them thoroughly.

Gallons of boiling water are demanded by country doctors who deliver babies on kitchen tables and by candlelight. Inhabitants of backcountry areas know that "fer sure."

Uncle Fred had been a party to the obstetrical adventures of his sister-in-law nigh onto 14 years and through 12 deliveries. Mighty tired he was of toting water to put on the stove.

"Doc," he complained, "what's all this water fer? I bring it in, my brother-in-law heats it up, but I never see you use it."

Confided the country doctor: "Close relatives of pregnant women mess things up, so I put 'em to work heatin' up barrels of water. That keeps them busy and out of my hair."

Logical Conclusion

Pre-med students sat woodenly through a lecture by a famed psychiatrist. His major point: handicapped people not only overcome their handicaps, but overcompensate for them. He cited many examples of youthful weaklings becoming professional athletes, boys who fared poorly in arithmetic turning into certified public accountants, tongue-tied laddies transforming into orators, etc., etc.

"Any questions?" he wound up.

"Yessir. Do feeble-minded boys become psychiatrists?"

Candid But Not Candied

Center of attention at a cocktail party was a well-known pediatrician. The women crowded around him, hung on his every word, and made him uncomfortable as an acorn amidst a family of squirrels.

"Tell me," gushed a battle-axe, "what's the juvenile complaint you encounter the most often?"

"Their mothers," he bluntly blurted making a break for the bar.

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McCord Aids Development of New Soldering Process for Heat Exchange Equipment

DETROIT—A "revolutionary" new soldering process for use in the manufacture of automotive radiators and other heat exchange equipment has been developed by McCord Corp. here, in cooperation with Mathieson Chemical Corp., Baltimore, Md., it was announced recently.

Called the "Coronil Soldering Process," the chemical-metallurgical method employs a new series of soldering fluxes bearing the trade name M.C.C. which were discovered by McCord and developed cooperatively with Mathieson.

These M.C.C. fluxes are said to be suitable for use in joining most of the commonly used metals and to produce solder bonds of highest strength, leave no corrosive residues, and eliminate corrosion of plant equipment.

M.C.C. fluxes are made from hydrazine, a Mathieson chemical with many potential uses. Hydrazine was first used on a large scale as a rocket fuel by the Germans in World War II, and has since found commercial application in the pharmaceutical, agricultural, metal finishing, and synthetic fiber fields.

Early research convinced McCord that certain hydrazine compounds answered the requirements of an ideal soldering flux. A cooperative laboratory and plant experimental program with Mathieson resulted in the development.

The "Coronil Soldering Process," in use for some time at one McCord plant, will be extended to operations in its other plants in the near future. The M.C.C. fluxes, available from Mathieson through an arrangement with McCord, have already found application in the manufacture of electronic equipment and in other industries.

Correction

Eavey Market Installed McCray Meat Cases

In the March 12 issue of the NEWS a field correspondent's story stated that the installation of self-service cases in Eavey's Market, Anderson, Ind., was a Hussmann installation. This is in error. The 60-ft. row of prepackaged meat cases was McCray Refrigerator Co. equipment.

Shortages May Limit Dairy Equipment Mfrs. To Emergency Needs

NEW YORK CITY—Fear that dwindling supplies of materials may make it impossible for dairy equipment manufacturers to meet more than emergency needs was expressed recently by Earle L. Slayton, machinery sales manager of Cherry Burrell Corp.

Slayton told the Association of Ice Cream Manufacturers of New York State that machinery producers are running out of materials. He said continued operation depends entirely on some arrangement being worked out for allocation of critical supplies for essential machinery.

Nickel for civilian use probably will be eliminated in two or three months at the present rate of acceleration of the defense program, he predicted. By 1952, barring unforeseen developments, there will be no pure nickel for production of freezer cylinders, he declared.

Slayton said Cherry Burrell is developing a chromium-plated carbon steel pipe as a substitute. Although this is not satisfactory, it may be the only emergency solution, he stated.

An adequate supply of ice cream was seen by Robert C. Hibben, executive secretary of the International Association of Ice Cream Manufacturers. He said this would be insured by a record milk production of 120,000,000,000 lbs. this year.

Hibben estimated that ice cream production in 1951 would total approximately 600,000,000 gals., compared with 553,000,000 in 1950 and a peak production of 786,000,000 in 1946.

Chicago Arena To House Summer Mart 'Overflow' Exhibits

CHICAGO—For the sixth time, an "overflow" of American Furniture Mart exhibits will be held in the Chicago Arena, during the Summer Market in Chicago, June 18-28.

Some 30 exhibitors will occupy 28,000 sq. ft. in the Arena, which adjoins the Mart. The Arena has been taken over and will be operated for the period by officials of the American Furniture Mart.

Hotpoint Sponsors Builder-Dealer Plan For All-Electric Demonstration Houses

CHICAGO—Plans for building 100 model all-electric houses as the first step in a 10-year builder-dealer program that may reach proportions of 1,000 demonstration houses in all parts of the country as the national defense program permits, were announced today by Edward R. Taylor, general sales manager, Hotpoint, Inc.

The activity will be conducted by distributors in cooperation with builders and dealers, patterned after the company's "most electrified house of the '50's" constructed last year near New York City.

Taylor said that the "pilot run" house built last year on Long Island became the most publicized house of the year. The planning that went into it is now being made available as a "master blueprint" for distributors, dealers, and builders in other areas. In every case, the houses will be designed around Hotpoint all-electric kitchens and laundries, and will also be furnished with such advanced equipment as pushbutton windows, low voltage wiring for remote control throughout, electrically heated greenhouses, and other devices. In some areas, fuel pumps and other new electric space-heating adaptations are under study.

The original "house of the '50's" was built and promoted nationally as a cooperative venture by Hotpoint and its New York distributor. More than 30 national manufacturers participated in the project. Direct sales results from the promotion include 220 new active builder-dealer accounts and a number of contracts for furnishings and decorating departments of department and furniture stores.

All details on how to set up and promote such an activity are contained in a 35-page work manual, giving the "how, when, and where" of a promotion that will fit conditions in a specific locality. This manual is being made available to dealers, builders, and architects through distributors.

It covers selection of an architect, objectives of the activity, kitchen-laundry floor plans, the builder, real estate, mortgages, insurance, list of companies that would be interested in participating, advertising and promotion, and how to handle an open house preview.

Distributors and dealers, aided by Hotpoint district managers, will decide what price bracket is best fitted to their areas. Taylor urged them to work closely with contract departments of department and furniture stores for maximum home furnishings and interior decorating dramatization. The activity also provides a cooperative theme with which dealers and other local merchants who tie-in can identify themselves.

Fire Damages Main Office Of Gilmore Refrigeration

PENSACOLA, Fla.—Damage estimated at $30,000 to $40,000 was caused at Gilmore Refrigeration Service, Inc., here by a fire which destroyed a major part of the firm's main office building.

The stockroom in the building was a total loss. It housed parts, supplies, and motors. The main warehouse was not damaged.

Hugh Gilmore of the firm said losses were completely covered.

The blaze slowed up operations but did not halt them, according to Gilmore. He expected the company to be operating normally shortly.

Hanson To Head Ice Cream Cabinet Section of ACRMA

WASHINGTON, D. C.—B. W. Hanson, president of Schaefer, Inc., Minneapolis, has been elected to head the trade association activities of the Ice Cream Cabinet Manufacturing Industry succeeding T. E. Hoye of Savage Arms Corp., Utica, N. Y.

This action was taken at the recent meeting of the ice cream cabinet section of the Air Conditioning and Refrigerating Machinery Association, according to ACRMA.

Elected vice chairman of the ice cream cabinet section was E. R. Wiegman of Anheuser-Busch, Inc., St. Louis.

Scrap Metal Shortage Threatens Steel Output

CHICAGO—With critically low scrap inventories threatening to slow down the steel industry's high rate of output, the American Steel Warehouse Association was urged to round up all available supplies through an all-out scrap drive.

Robert W. Wolcott, chairman of the American Iron & Steel Institute's scrap committee, recommended staging of the campaign in a recent talk before the association. He reported that steel mill scrap inventories average only 21 days' supply, compared with the usual 60-day inventory.

"Some mills have much less than the 21-day average," he said, "and a few are in dire straits. Forced shutdowns of some open hearth furnaces is not an impossibility—it happened in April."

If steel production is to be increased, steel mills and foundries must consume purchased scrap at a higher rate than the nearly 100,000 tons used daily now—a record level, Wolcott declared, adding:

"By the end of next year we shall be needing some five million additional tons of scrap annually compared to last year's consumption."

Wolcott pointed out that European sources of scrap are drying up, but noted that progress is being made toward salvaging some of the 500,000 tons of scrap on Pacific islands.

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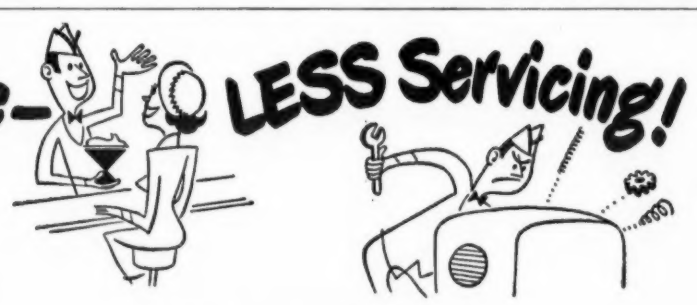

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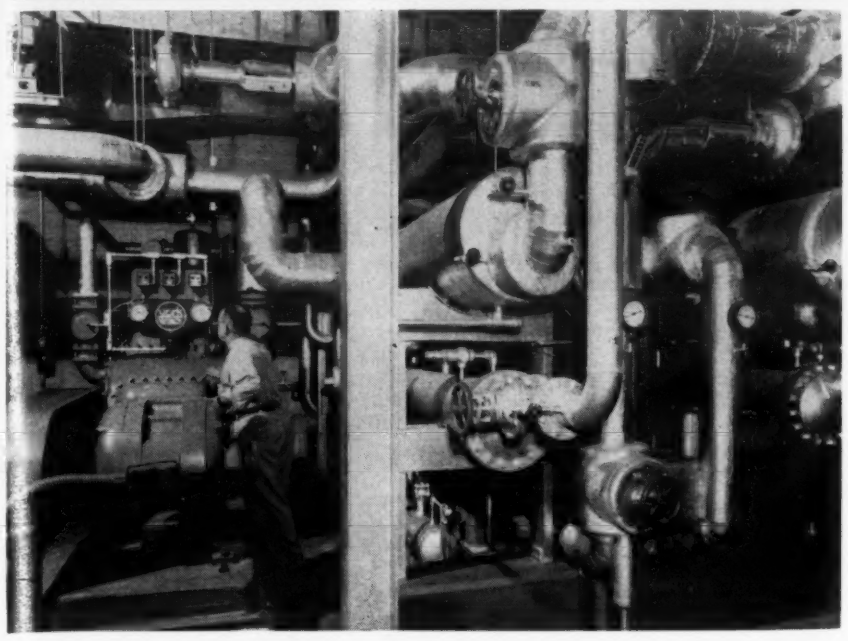

WINTER HEAT AND SUMMER COOLING are provided by this large York heat pump installation at Gulf States Utilities, Beaumont, Texas.

Texas-Size Heat Pump

Beaumont Utility Installs Reverse Cycle System In the Land of Natural Gas and Oil

BEAUMONT, Tex.—A few months ago, a Texas-size heat pump installation was made for the Gulf States Utilities Co. here, which, like many other companies of this type, had grown to the point where a new office building and service center was necessary.

The utility serves the city of Beaumont and surrounding territory to the extent of approximately 2,000,000,000 kilowatt hours of electricity per year.

Even though natural gas and fuel oil are very reasonable in price in this area, the company decided to equip the building with reverse-cycle heating along with the cooling equipment considered a necessity in this part of the country, according to R. S. Sandifer and J. R. Jones, sales engineers, York Corp.

Two systems were specified, each consisting of a "Freon-12" compressor with driving motor, condenser, and water chiller along with coil type conditioners, auxiliaries, and controls.

Well water is used in the "Freon" condensers to liquefy the refrigerant during the normal cooling operation. This same well water is used in winter through the water chiller to provide the refrigerating load for the compressors to heat the recirculated condenser water to the desired temperature.

Automatic control is provided for both summer cooling and winter heating. Water leaving the cooler in summer operation is maintained at an average temperature of 43° F. For winter heating, a water temperature of 107° F. from the condenser is maintained. The changeover from summer to winter operating cycles, and vice versa, is accomplished automatically.

This York system was installed during the 1950 cooling season and functioned efficiently.

For a heat pump installation of this type, consideration should be given to the sizing of compressor motors as the greatest load on the compressor is during the heating cycle, when both discharge and suction pressures dictate the greater horsepower requirements.

Care should also be exercised in selecting the immersion-type safety thermostat used in the water chiller, since during the change-over from cooling to heating, this thermostat is momentarily subjected to a temperature about 100° F. and should, therefore, have a range above that point.

The engineers of the Gulf States Utilities Co. are keeping accurate costs on the operating expenses for both cooling and heating and will be able, within the next year, to give a comprehensive report on the owning and operating costs of this system. They are confident that more of these systems will be installed soon after this data is available.

The complete installation was made by the mechanical contractor, the Reed Co., York distributor in Beaumont.

F. S. Cornell Named Group Executive for A. O. Smith

MILWAUKEE — F. S. Cornell, manager of A. O. Smith Corp. plant at Kankakee, Ill., has been appointed group executive for the Kankakee Works, the Eastern Motor Division at Tipp City, Ohio, and the company's Heating Division in Toledo.

The Kankakee Works manufactures automatic storage water heaters, and a farm storage unit called the Harvestore. Fractional and integral horsepower electric motors are made at Tipp City. The Toledo plant produces commercial water heaters, house heating boilers, and gas conversion burners.

Cornell will make his headquarters in Kankakee and will continue as manager of the Kankakee Works.

ASA-B9 Interpretations Sub-Committee To Meet In Detroit June 1

NEW YORK CITY—Next quarterly meeting of the Interpretations Sub-Committee of the American Standards Association which is empowered to consider and recommend changes in the B9 Safety Code for Mechanical Refrigeration will be held Thursday, June 1, at the Statler hotel in Detroit following the 38th spring meeting of the American Society of Refrigerating Engineers.

In announcing this meeting, M. C. Turpin, secretary of the sub-committee, advises that any questions or recommendations for changes or interpretations on the B9 code should be referred to this committee.

The sub-committee itself cannot change the code, but if it believes revisions are necessary it can recommend them to the over-all Sectional Committee of ASA which can approve the changes. The latter group is made up of representatives from 36 organizations.

Chairman of the Interpretations Sub-Committee is E. T. Benson of Frigidaire. Other members besides Turpin are J. R. Chamberlain of York Corp., S. V. James of Underwriters Laboratories, J. C. Rehard of the City of Detroit, and Lee J. Wallace, Bridgeport, Conn.

Marine Electric Opens

LAFAYETTE, La.—Marine Electric Co., Westinghouse dealer, recently opened its new appliance display room at 114 E. Congress St.

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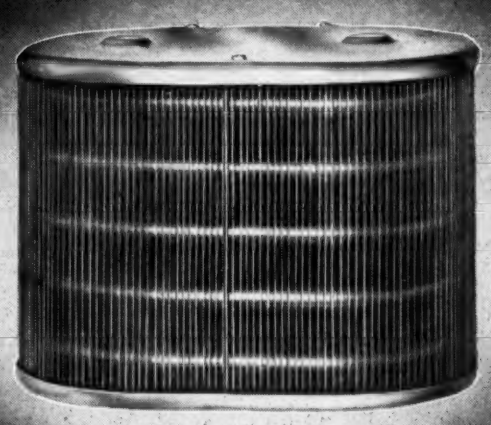

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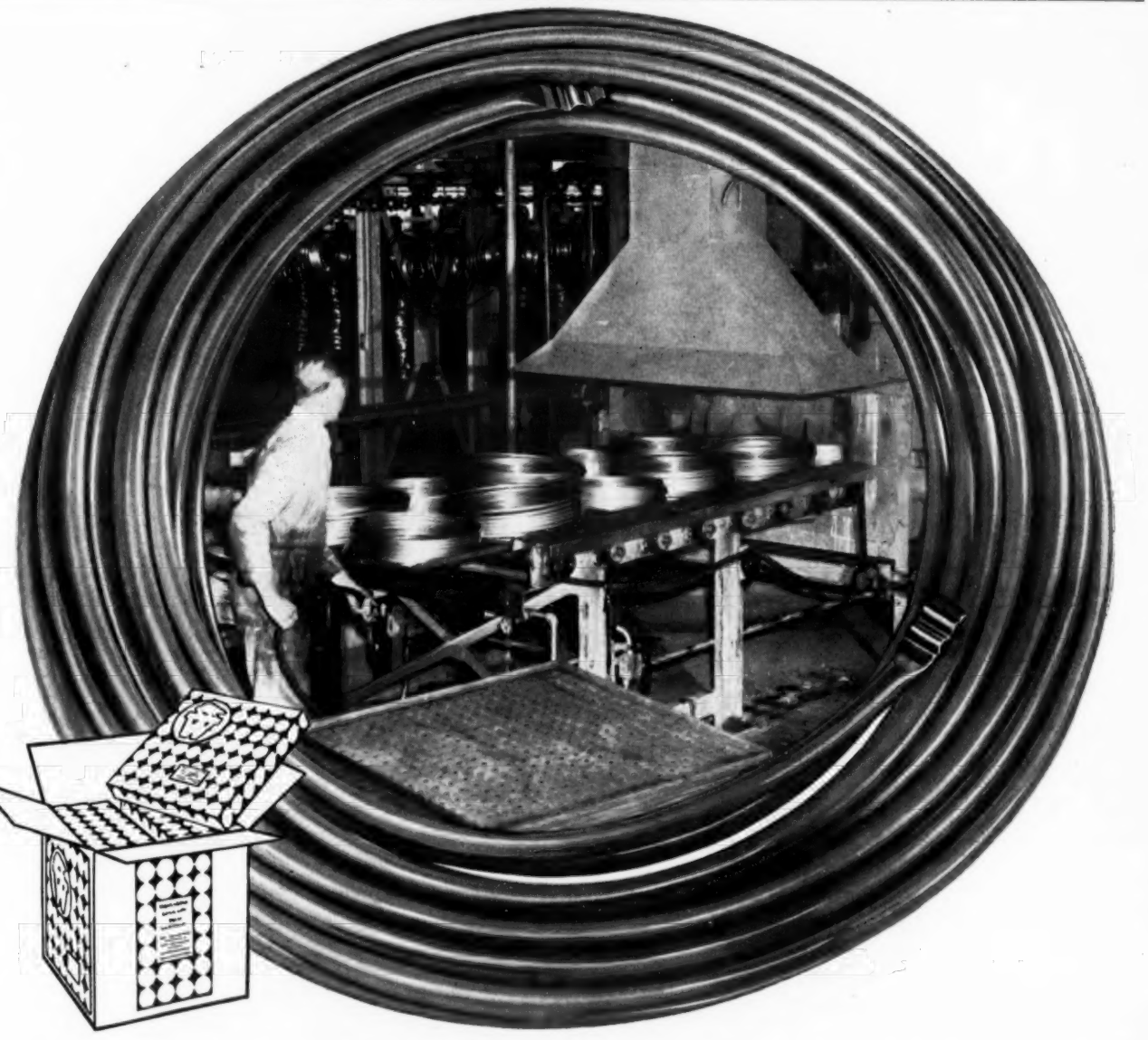

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Miami Furniture Dealers Initiate 3 Ordinances To Ban False Advertising

MIAMI, Fla. — Three city ordinances banning false and misleading advertising and "fake" sales went into effect early this month.

Action leading to passage of the regulations was initiated by the Miami Retail Furniture Dealers Association. City officials cooperated with the group in the project.

A first violation of the ordinances will result in a warning to the offender. If the violation is repeated, he will be penalized and the facts made public. The maximum penalty is a $500 fine and/or a 30-day jail sentence.

Advertising will be examined by William Dohany, president of the local Better Business Bureau, for possible violations. The ordinances will be enforced by Miami's Department of Weights and Measures.

One of the three ordinances covers incomplete, untrue, deceptive, or misleading statements regarding merchandise or services, and advertising a reduction either in figures or percentage under a previous price, when such reduction is not based on a previous bona fide sales price or cost price represented to the public.

It also deals with exaggerated variations in the comparative size, location, or position of letters or other markings on price tags, advertisements, or other public representations for the purpose of deception.

Another ordinance prohibits "fake" sales. These are defined as sales of goods at auction or otherwise to a person purchasing the goods on behalf of the owner; offering goods for sale in limited quantities of less than the full amount of such merchandise carried in retail stock on the premises; the sale of goods of a different quality or brand, or bearing a different trademark, as a substitute for merchandise advertised for sale; misrepresentation of quantity, quality, or brand; and offering goods for sale contingent upon concurrent purchase of another article.

The third ordinance pertains to bankruptcy and closing-out sales. It provides for the regulation of the advertising and method of conducting such sales, and for the regulation and supervision of these sales by the director of finance.

Under this ordinance, a retailer going out of business must give up his regular license for a 30-day permit. The permit can be renewed for 30 additional days, then for 15 more.

The dealer must report his complete inventory at the beginning of the sale. Upon filing a request for an extension of his permit, he must supply sales and inventory records to show that no additional merchandise has been acquired.

How To Sell to U.S. Army

WASHINGTON, D. C. — Latest issue of the pamphlet "How To Sell To the United States Army" is now available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at a cost of 30 cents.

Norris Stamping Co. Changes Firm Name to Norris-Thermador Corp.

LOS ANGELES — Executives of Norris Stamping & Mfg. Co. here announced that henceforth the organization, in joint title with its wholly-owned subsidiary, Thermador Electrical Mfg. Co., will be known as Norris-Thermador Corp.

The new, simplified title more accurately represents joint activities of the corporation, executives said, in explaining the name change. Kenneth T. Norris, president of the Norris Co., said there will be no change in the financial structure of the organization.

William E. Cranston, Thermador president, stated that, "for the foreseeable future, Thermador will continue to operate as a separate corporation."

Norris products are principally automobile wheels, supplied to West Coast manufacturers; pressed metal plumbing ware; and pressure cylinders used to contain propane, butane, oxygen, acetylene, "Freon," and other cases.

Thermador is a West Coast manufacturer of electrical equipment including wall, ceiling, and portable fan type heaters; air coolers, electric ranges, water heaters; small transformers; automobile coolers; as well as fractional horsepower motors.

Both companies are currently producing ammunition components for the government and are negotiating for additional contracts for defense materials.

Omaha Mfrs. Reactivate Production Pool To Speed Defense Work to Small Firms

WASHINGTON, D. C.—One hundred small manufacturing concerns in the Omaha, Neb. area have been authorized to form a production pool for the purpose of speeding defense work through prime and subcontracts, Defense Production Administrator William H. Harrison announced recently.

The pool, designated as "Omaha Industries, Inc.," is the first of its kind approved by the government in the present defense mobilization effort. During World War II several hundred pools of this type were formed. An Omaha pool was operated successfully at that time and is, in effect, being reactivated under the Defense Act of 1950, Harrison said.

He said it is expected that additional members throughout the state will join the Omaha organization, and that 10 or 12 other pools are in process of organization in other states.

Harrison emphasized that the activities of the Omaha pool will be concerned only with defense work undertaken by members and that the pool specifically excludes regular commercial business.

The Omaha pool is incorporated under the laws of Nebraska. Each participating firm pays a membership fee. Total number of employes involved is 5,279, an average of 52.8 employes per affiliate.

DPA will encourage formation of production pools where it will further the defense effort, Harrison said. "But," he added, "we are not recommending their formation because we believe that their management requires an unusually high degree of skill. However, DPA is assisting wherever that assistance is called for."

The DPA Administrator also said that NPA will assist small businesses considering the formation of pools. NPA will act through a Procurement Assistance Division operating in the NPA Office of Small Business, which is headed by John C. Pritchard.

World War II experience indicates that success comes most often to pools headed by one individual or one organization capable of securing and maintaining the respect of members. This management factor is important to Federal Procurement agencies because it enables them to look to one person or organization for responsibility in completion of a prime contract. Moreover, in obtaining subcontracts, the pool has more bargaining power with prime contractors than has an individual small firm.

To be successful, it was found, groups needed "staying" qualities to cover the period from organization until the first contract is secured—and this sometimes takes months.

Responses to questionnaires received from many production pools in World War II indicate that major reasons for failures included inability to obtain war contracts, poor management, inability to meet competition, scarcity of skilled labor, and refusal of prime contractors to subcontract.

Responsibility of production pools for obtaining contracts on their own must be emphasized, DPA said.

Persons desiring to form a production pool, the activities of which might be within the prohibition of the anti-trust laws or the Federal Trade Commission, must satisfy the requirements of the Defense Production Act of 1950. Procedures necessary to acquire such immunity and to meet such requirements are necessarily technical and require the attention of various Federal agencies.

To obtain proper approval the plan of operation of such a pool must be submitted to the Pooling Section, Procurement Assistance Division, Office of Small Business, National Production Authority, U. S. Department of Commerce. In such case it will be necessary for a proposed pool to show that it is in the public interest as a contributing factor to the national defense.

For example, DPA said, it should be shown that defense production will be accelerated by the pooled facilities, or more effective distribution of defense contracts among smaller business enterprises and spread of employment will result, or defense production will be further decentralized.

R. A. Gilruth To Manage Adv., Sales Promotion For Deepfreeze Div.

NORTH CHICAGO, Ill.—Robert A. Gilruth has been appointed advertising and sales promotion manager of the Deepfreeze Appliance Div., Motor Products Corp., B. G. Sanderson, general sales manager of the division, announced.

R. A. Gilruth

For the past four years, Gilruth has been an account executive and copywriter for LeVally, Inc. He was assigned to Marathon Paper Co., manufacturer of frozen food packaging materials, and to Chicago Electric Mfg. Co., maker of small appliances. Prior to that, he was in copy and research with the J. R. Pershall Co. and worked on the Commonwealth Edison and Public Service Co. of Northern Illinois accounts.

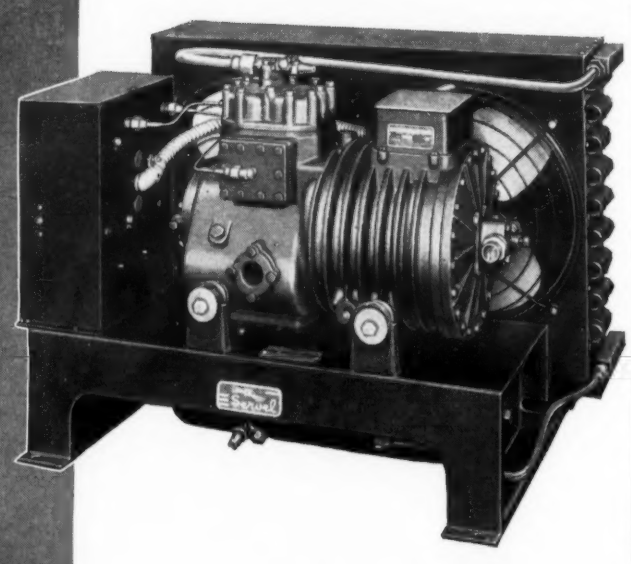
Steel Shortage Cuts Crosley Refrigerator Production 20%

CINCINNATI — Government restrictions on the use of strategic materials has forced Crosley to cut back refrigerator production and lay off approximately 20% of the employes at its Richmond, Ind. plant, according to John W. Craig, Crosley general manager.

Craig said NPA Order M-47, which reduces the amount of steel manufacturers may use, was the reason for the cutback. He also cited orders restricting the use of aluminum, zinc, tin, copper, and other essential materials.

presenting..

1951 models of cast-case air or water-cooled Servel SUPERMETIC electric condensing units



1½HP—2HP—3HP
2 and 4 Cylinders

Greater Flexibility . . . Now available as standard in either single-phase or 3-phase.

Air and Water-Cooled . . . All Supermetic cast-case models (1½, 2 and 3 HP) are offered in water-cooled designs. Two of the sizes (1½ and 2 HP) are also available in air-cooled designs. All three sizes offer a choice of either low or medium temperature types.

Improved Design . . . Interchangeability of parts—increased capacity—greater efficiency—more compact—quieter operation.

Also available . . . Improved Power Units, ⅓ to 5 Horsepower—for Manufacturers of Air-Conditioning Equipment.

For more information about Servel Supermetics
MAIL THE COUPON

Servel
SUPERMETIC
Models for every commercial refrigeration and air-conditioning use . . . 1/5 to 5 H.P.

SERVEL, INC.
ELECTRIC REFRIGERATION DIVISION
DEPT. A-53 EVANSVILLE 20, IND.
Send complete information about 1951 cast-case models and other Supermetic units for '51
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TITLE_____
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YOU CAN'T BEAT THE VICTOR
DISPLAY CASE LINE

- Every type of display case.
- For Meats, Vegetables, Fish, Delicatessen and Dairy Products.
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- Variety of sizes and endless models for any store layout.
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- *Displays that Sell.*

For information write: Victor
MANUFACTURERS OF THE FAMOUS VICTOR QUICKFREEZE
PRODUCTS CORPORATION • HAGERSTOWN, MD.

Trion To Install Air Filtering Equipment In Calcutta Telephone Bldg.

McKEES ROCKS, Pa.—Trion, Inc., lesigner and manufacturer of elecronic air filtering equipment has ecently been commissioned to upply air cleaning equipment for he new Automatic Telephone Exhange building in Calcutta, India.

According to John W. Frazier, Trion general sales manager, the Trion unit to be installed will remove over 90% of all dirt, dust, smoke, and particulate matter from the air. Thus, a constant flow of clean, pure air will be recirculated throughout the new building during all seasons of the year.

Many advantages will be realized from the installation. The microscopic particles of dirt and dust, some 1/250,000 of an inch in size, which tend to clog and coat this type of precision equipment and increase friction wear will be virtually eliminated.

Telephone exchanges throughout the United States find that electronic filters prevent dust from causing the tiny relays to stick in automatic systems.

In addition to the greater efficiency in operation, clean air will provide less depreciation of the automatic equipment as well as other types of equipment in the building.

Furthermore, building maintenance cost will be greatly reduced as walls, ceilings, and furnishings will remain dirt-free for long periods of time.

This is believed to be the first installation of electronic air filters in India. Trion units have also been shipped to Italy, Mexico, Sweden, and Japan.

Mitchell Establishes Research Foundation

CHICAGO—Establishment of The Mitchell Air-Conditioning Research Foundation has been announced by B. A. Mitchell, president of the Mitchell Mfg. Co. here.

Purpose of the foundation, a nonprofit organization, is to study the effects of room air conditioning on the human body. Initial experiments will be carried out at Michael Reese hospital in Chicago and will concentrate on the effects of an air conditioned atmosphere on healthy and failing human hearts.

Noting that the air conditioner "is no longer a luxury product," Mitchell said the company is "cooperating with some of the top medical scientists in the world to discover presently unknown values to this great boon to human comfort. This research will be of importance to the entire industry."

He said the results from these first experiments will be available for publication about January, 1952.

Charles Holtz Joins Detroit Firm

DETROIT—Charles L. Holtz, registered professional engineer, has become associated with the sales engineering staff of Mechanical Heat & Cold, Inc. according to Willard H. Sherman, vice president.

For the past six years Holtz has been superintendent of maintenance for Gelatin Products of Detroit.

Telling the Industry Story

G-E Defense Display Shows Role Of Air Conditioning, Refrigeration

WASHINGTON, D. C.—A General Electric exhibit in the Federal Room of the Hotel Statler in Washington during April displayed heating, air conditioning, and refrigeration for use in the defense program.

According to H. M. Brundage, manager of the sales division, the objective of this exhibit was to show representatives of government agencies and government contractors how the products and facilities of G-E's Air Conditioning Department can best serve the interests of national mobilization.

The heating equipment exhibit featured horizontal and vertical furnaces particularly suited for low-cost defense housing projects. Multiple installation of oil boilers was shown to emphasize flexibility and economy in heating military buildings and defense plants, and the G-E Air Wall System combining forced warm air and radiant heat was demonstrated.

Of major interest was a transportable air conditioner specially designed for military use in trailers for electronic, communications, and laboratory equipment. This 1½-ton air cooled unit features building-block construction for adaptability to compact space requirements.

Other air conditioners displayed were window-mounted, packaged, and central plant units used in a variety of temperature and humidity control applications, including specialized military buildings, laboratories, and industrial plants.

Refrigeration machines were demonstrated in a range of models based on military needs for preservation of perishable commodities and process cooling in defense plants.

Drinking water coolers as used by the Navy for shipboard use and by the Army Quartermaster Corps and suitable for many other industrial and defense applications were shown. In addition to military needs, Brundage stressed the importance of adequate drinking water facilities to employe efficiency in defense factories and offices.

A new heat pump was demonstrated in operation for the first time. This 3-ton packaged unit provides automatic heating and cooling without combustion of fuel. It was played up as being particularly suitable for defense housing and military structures where the characteristics of the location are such that all-electric operation is most practical, and where water and fuel are relatively scarce.

RIGHT: 600 Defense and Government people viewed this G-E display of the part that the refrigeration, air conditioning, and heating industries are playing in the defense program. War production, military needs, and defense housing requirements were emphasized. The heat pump display marked the first public demonstration of G-E's heat pump.

Did You Know?

Ad Stresses 5 Reasons For Cold Storage of Furs

ELMIRA, N. Y.—Hygeia Refrigerating Co. promoted its cold fur storage vault business in the spring season with a large newspaper advertisement built around the caption: "Safest Cold Fur Storage By All Known Standards."

Under the sub-heading, "You Should Know These Facts," copy read:

"1. Cold fur storage (below 40° F.) is the only method known to completely protect your furs.

"2. Heat stiffens the pelts—makes them brittle—causes splits and shredding.

"3. Moths can't do their dirty work in cold storage.

"4. Clean, dry, cold-controlled air for your precious furs means longer life—lasting beauty.

"5. Your favorite shop, store, furrier, laundry, or dry cleaner (over 100 in this area) will give your furs complete protection in Hygeia's certified cold storage fur vaults."

Publix Supermarket Cooled

TAMPA, Fla.—Air conditioned, the new 15,000-sq. ft. Publix Supermarket, 1313 Dale Mabry highway, held its formal opening recently. It is one of the largest food stores on the Florida west coast.

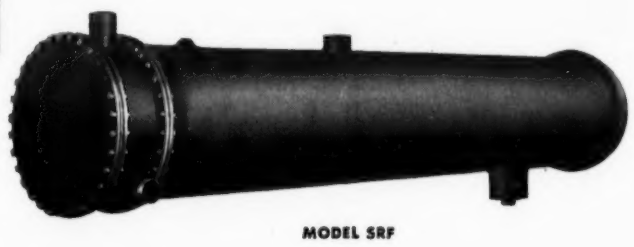
specify ACME CONDENSERS

and you meet every sales requirement

Through practical experience and constant research Acme Engineers have developed a wide variety of models and sizes of Freon, Ammonia, Shell and Coil and Shell and Tube Condensers. The Acme Condenser Line is varied enough to permit the selection of the right model and the right size unit to meet *every* requirement.

FREON CONDENSERS

Exclusive method of tube support eliminates noise.
Easy to clean.
Leak proof joints.
Combination Heads.
More than 120 different sizes.
A.S.M.E. Certification.

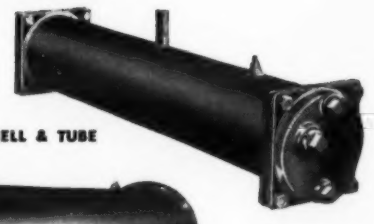

MODEL SRF

Shell & Coil and Shell & Tube CONDENSERS

Shell & Coil
Drainable Coils
Compact
Inexpensive

Shell & Tube
Cleanable tubes
Inexpensive
Compact
Dual Pass (J300 & larger)

SHELL & COIL


SHELL & TUBE

AMMONIA CONDENSERS

Exclusive Locknut Construction Available
Rolled-in or Welded Tubes
A.S.M.E. Construction and Certification
Locknut Assembly for Easy Replacement
Custom Built

AMMONIA

These are only a few of the features and advantages that have made ACME Condensers the choice of the heavy refrigeration Industry for quality, design and lasting performance. Write for catalog on equipment you require.

ACME ALSO MANUFACTURES:

Dry-Ex* Water Coolers • Hi-Peak* Water Coolers • Flow-Cold* Liquid Chillers • Fin Coils • Cooling Towers • Oil Separators • Liquid Receivers • Heat Exchangers • Bio-Cold* Industrial Unit Coolers • Flow-Cold Refrigeration Units • Convectors

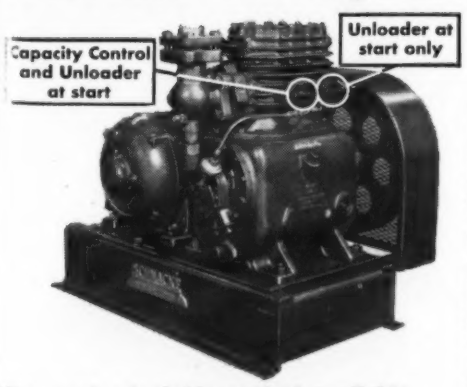
* Trade Mark

ACME INDUSTRIES, INC.
Dept. AC
Jackson, Michigan

ACME PRODUCTS

continuously serving the refrigeration industry since 1919

SCHNACKE COMPRESSORS *feature* Unloaded Starting or Capacity Control



as required for the job . . .

For applications requiring cylinder unloading for capacity control or starting—Schnacke provides a versatile control designed to fit the job exactly. This device is applied to each cylinder as ordered, for either unloaded start only, or as capacity control and unloaded starting, and priced accordingly—not a flat extra charge. It is not included if you do not need it and you pay only for the actual control ordered.

The most adaptable control available—or unloaded starting only—or for capacity control and unloaded starting just as required for the job. Self-contained, no outside controls, solenoids, or wiring.

Schnacke recommends THERMATROL capacity control for simplest of operation and trouble free performance.

Compressors and Condensing Unit 5 H.P. to 60 H.P.

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They'll Do It Every Time . . . . By Jimmy Hatlo

HELLO, CRUMNEY··· ALWAYS GOOD TO SEE YOU ON FRIDAYS··· HOW'S YOUR DOUBLE GRIPPE? I THOUGHT YOUR MISSUS PHONED IN AND SAID YOU WEREN'T ABLE TO WALK···
WELL···I'M FEELING A LITTLE BETTER, BUT··· (KOFF-KOFF-KOFF)···UH··· I GOT TO TAKE IT EASY FOR A LONG TIME YET···· I'M IN BED MOST OF THE TIME···BUT THE DOC SAYS IT'S GOOD FOR ME TO TAKE A LITTLE WALK MEBBE ONCE A WEEK···
WHEN THE GHOST WALKS, CRUM WALKS···HE'S GOT A COT RIGHT UNDER THE $2 WINDOW····THE ONLY DOC HE EVER SEES IS A HORSE DOCTOR····
I WENT TO SCHOOL WITH HIM···HE'S ONE GUY WHO'S MADE A CAREER OUT OF PLAYING HOOKY···
DOUBLE GRIP IS RIGHT···AT LEAST TWO BOOKIES HAVE STRANGLE HOLDS ON HIM···
HE'LL BE BACK WHEN HIS WIFE GETS SICK OF HIM HANGING AROUND AN' PUTS HIM ON SPRING-CLEANING···
CASHIER
RACE TIPS
JIMMY HATLO
4-20
THE LEAST THEY COULD DO IS MAIL OUT THE POOR GUY'S CHECKS····
THANX TO PAUL E. PENROD, 3806 PRINCETON, NASHVILLE, TENN.·
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for all water cooling use **Filtrine** —sell more condensing units

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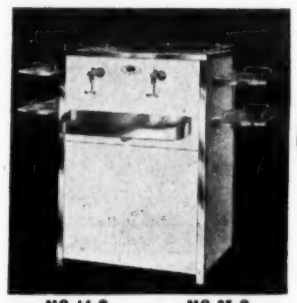
Sell your own condensing unit . . . with coolers backed by Filtrine's 40-year dependability. 1. Government and general acceptance for high efficiency—dependability—20-year life construction. 2. High capacity—super storage. 3. Handsome exterior (all stainless steel or Duco with stainless trim). 4. Equipped to suit with top and/or side shelves. 5. Bubblers, glass-fillers, front, back or all sides. 6. Can be "Taste-Master" equipped to banish chlorine and insure sparkling water.

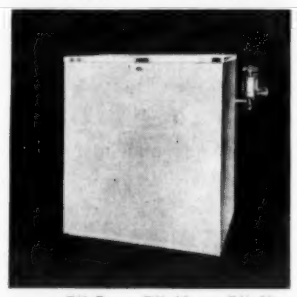


MC-14-S MC-43-S MC-25-S MC-40-S

No. 4 "Taste-Master" Filter

COOLERS FOR X-RAY & PHOTOGRAPHY

Sell your own condensing unit . . . with these Filtrine coolers pre-approved by military and V.A. medical procurement offices, Signal Corps, Air Force, etc., for X-Ray darkroom and photo-lab installation. 1. Dependable water of correct temperature for film processing. 2. Large storage for heavy duty and emergency requirements. 3. High efficiency, economy operation—20-year life construction. 4. Floor mounted with stainless steel work-table top; also under-counter models. 5. Filters (extra) prevent scratched and pinholed negatives.



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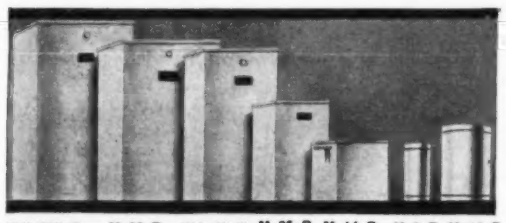


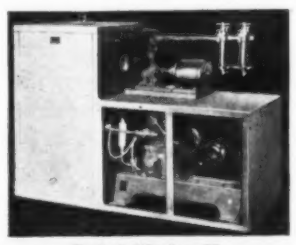
MH-300-R MH-150-R M-300-R M-150-R M-90-R M-75-R MA-40-R M-43-R M-40-R M-25-R M-14-R X-2-R M-7-R M-10-R M-20-R

REMOTE COOLERS FOR ALL USES

Sell your own condensing unit . . . with Filtrine coolers suitable for new and replacement installation everywhere: barracks, military depots, mills, schools, post offices. 1. Capacities 5-800 g.p.h.—storage 7-300 gallons. 2. High efficiency—20-year life-span. 3. Insulation—2" hydrolene-sealed corkboard. 4. Filters and Rectifiers/Dechlorinators available for all sizes.

PACKAGED CIRCULATING CHILLED WATER SYSTEMS

Sell your own condensing unit . . . with complete Filtrine systems for circulating drinking water in offices, hospitals, industrial plants . . . for processing water as low as 34°. 1. Completely packaged for streamlined engineering, quick installation. 2. Capacities 5 to 400 g.p.h.—Storage 5 to 150 gallons. 3. Equipped with heavy-duty pump. 4. Your condensing unit factory installed. 5. Insulation—2-inch hydrolene-sealed corkboard. 6. 20-year life construction. 7. Filter-Rectifier assembly (extra) to kill chlorine and keep water sparkling.



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"Water Coolers and Filters for 40 Years"

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Published Every Monday by BUSINESS NEWS PUBLISHING CO. 450 W. Fort St., Detroit 26, Mich. Telephone Woodward 2-0924.

Subscription Rates: U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: $5.00 per year; 2 years $8.00. All other foreign countries: $7.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Please send remittance with order.

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VOLUME 63, NO. 3, SERIAL NO. 1,157, MAY 21, 1951

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—*Charles A. Dana.*

They Have Worries, Too

Production shortages, internal security dangers, and the "inflexibility and limitations of the individual in the totalitarian state" are but three of the many problems of the Soviet state, according to Walter Evans, vice president of the Westinghouse Electric Corp.

In an analysis of the assets and liabilities of the United States and the Union of Soviet Republics, he reports that if we fulfill our responsibilities as citizens we stand a fair chance of solving our problems, but upheaval is the only solution for the Soviet. Contrasting the positions of Russia and the United States, he declares:

"The vast preponderance of the world's industrial strength is arrayed against Stalin. His European allies are backward and unstable; of some of them it might be said that they have never yet ended a war on the same side they started out on—unless they changed sides twice. His resources are underdeveloped and unbalanced; much of his country is still in ruins.

"Although it has long been Stalin's creed that production wins wars, the Soviet simply does not approach United States production and in all probability never will . . . because the Soviet although controlling 32% of the world's population has less than 10% of the supply of skilled and educated manpower, and this must be divided between the army and industry. In addition, there is little opportunity for the individual worker to realize personal advantages from increased productivity. Political unrest is reflected in sabotage of production processes, and the Russian people are showing the strain of hard work and long hours without much reward."

The United States, with six per cent of the world's population and seven per cent of its land area, has a total national production of 275 billion dollars, more than half of the world's manufactured goods. What's more, with a current 24 billion dollar expansion program, the total will soon be raised to 300 billion dollars. We are producing three times as much steel as the Red Empire; six times the electric power, ten times as much wheat.

Mr. Evans continues: "In the freedom of the press, freedom to worship as we see fit, freedom to write and talk, freedom for each of us to choose a course of action—this nation has a flexibility which may prove a deciding factor in solving any problems set before us either in war or peace."

Soviet assets include "a large country, favorably located, with huge military machine, directed by a small group of men who can act quickly and unexpectedly without responsibility to their people, and a basic drive which borders on fanaticism to bring the rest of the world under Soviet influence. However, the many Soviet problems which also include shortages of food and natural resources, Titoism, or the revival of nationalism in satellite countries, and intense hatred from people in looted and plundered countries, can be solved only by Soviet action, and are of such nature that upheaval may bring the only final solution."

Although the United States faces serious problems in inflation, manpower shortages, bureaucratic government, and an unstable foreign policy, Mr. Evans believes one of our greatest needs is to "reactivate the American spirit . . . a spirit which flamed from the campfires in the American Revolution to all of the countries represented today in the free world coalition. The characteristics on which this country was founded and grew—grit, determination, ingenuity, and courage—were never more needed than they are today."

Automatic Defrost: *Necessary Time-Saver for Commercial Users, It Can Be Accomplished In Several Ways*

By C. Dale Mericle

BUFFALO—Numerous methods of automatically defrosting commercial refrigeration equipment were outlined at the eastern REMA-RSES Education Conference by R. H. Luscombe, sales manager of Penn Electric Switch Co., who cautioned the servicemen:

"There must be more interest and attention given to the defrosting of commercial equipment. Automatic defrosting has become necessary to save time, labor, and food products for store operators."

Admitting that "the whole subject of automatic defrosting is in a transitional stage and that there is considerable controversy at present as to the best methods of achieving automatic defrosting," Luscombe emphasized that "controls, timers, and valves are now available so you can do nearly anything you want to in defrosting automatically."

Defrosting methods have become increasingly complex since the early days of the brine evaporators, he reminded the group. The usually oversize brine coils could accumulate considerable frost before defrosting was necessary, and that was a manual operation. The introduction of fins on the coils, and the use of smaller coils, made more frequent defrosting necessary, and now automatic defrosting is desirable in nearly every instance.

"Automatic defrost systems may be classified in two general types—the shutdown method or the supplementary heat method. The first is generally limited to evaporators operating at 25° or above, while the second or supplementary heat method is used below 35° F."

In briefly describing the various methods of automatic defrost presently available, the speaker first outlined the shut-down methods.

SHUT-DOWN METHODS

Pressure defrost has been used for many years on normal temperature equipment, he said. Pressure control is so set that the unit defrosts on every cycle.

"Where a temperature of 33° F. or lower is maintained, the pressure method is generally not practical," stated Luscombe.

Temperature defrost is another "shut-down" defrost method. One way is to have a two-temperature switch with two bulbs. One bulb is sensitive to temperature of air leaving the evaporator and thus opens the switch when the desired air temperature is obtained. This bulb cannot close the switch. Another bulb sensitive to the temperature of the coil turns the unit back on when the coil temperature indicates defrosting has been completed.

"Avrgaire" temperature defrost system employs a bulb which feels the average temperature of the coil and air to start and stop the compressor to maintain close temperature and provide a "shut-down" defrost every cycle.

"This system," added Luscombe, "is designed to skip the defrost cycle in the event of an unusually heavy pull-down."

Time shut-down method simply employs an automatic timer switch to shut down the system at predetermined intervals for predetermined lengths of time.

"Adjusting such a system to obtain the proper defrost time is rather difficult," explained the speaker. "During winter less frequent and shorter defrost periods would be required than in the summer, so the timer should be readjusted seasonally. Open equipment is frequently defrosted by time clock," he added.

Time-pressure defrost involves a timer switch which is set to stop the compressor from two to six times a day, depending on the frequency thought necessary. The timer, however, cannot reclose the switch. A pressure-responsive mechanism in the low side closes the switch at a predetermined pressure.

"As the coil defrosts, the low-side pressure rises. When the coil is completely defrosted, the pressure switch turns on the unit. This method has many applications in the 25° F. to 33° F. range, but it can't be used if the compressor is located in a low-temperature ambient, such as in a cold basement location, or an outside unheated 'doghouse.'"

SUPPLEMENTARY HEAT METHODS

Brine spray defrost is a supplementary method of defrost in which brine is sprayed on the coil either continuously or periodically.

Water defrost (manual) defrosts the coil by spraying water when the system is shut down. It is controlled by hand at the discretion of the owner or operator of the equipment. A three-way valve and by-pass are usually incorporated in the design.

After the compressor and coil blower are shut off, the water valve is opened. When defrosting is completed, but before condensing unit and fan are turned on, the three-way water valve is turned so that water flows down the drain for a short period of time. This is to insure clearing all ice from drain pan and pipe so it won't freeze and clog during "on" cycle of the system. After the water valve is turned to "off" position, the compressor and fan are turned on.

Water defrost (automatic) performs all the above functions, but they're done automatically by a special timer.

Electric defrost (automatic) involves the use of electric heaters in the evaporator controlled by a timer switch. There are numerous variations on the basic method.

Electric defrost (indirect). Used on normal and low temperature installations, this method employs electric heaters to heat refrigerant gas or an anti-freeze solution circulated through or around coil to achieve defrosting.

Hot gas defrost with manual valve. Compressor operates during defrost cycle, by-passing hot gas into evaporator. This causes rapid defrosting. Ice loosens and falls off coil before all of it is melted. This method has been used for many years on unitary commercial equipment.

Hot gas defrost with magnetic valve and automatic timer. Numerous variations of this method are employed by individual manufacturers. Re-evaporators are sometimes used to insure that no liquid slugs return to the compressor. Heavily spring-loaded time-operated mechanical valves are sometimes employed with this method.

Hot gas "Thermobank" defrost system stores heat in an anti-freeze solution during operating cycle and then supplies heat needed for defrosting at timed defrost periods.

Hot gas reverse cycle system. This system employs an electrically operated four-way valve to reverse refrigerant flow automatically during defrost, the valve being controlled by a timer. A manual valve, of course, can also be employed.

Several manufacturers, according to Luscombe, employ the automatic reverse cycle system on commercial equipment. A timer and pressure or temperature control can be used to start and stop, respectively, the defrost cycle. Some of these incorporate a time delay on the blower fan following the end of the defrost cycle. This prevents the fan starting before the coil is cooled down and thus avoids circulating moist and warm air.

"I've seen a reverse cycle system on a closely spaced fin coil operating at -40° F. defrost automatically in seven minutes," Luscombe said.

Latest trend in automatic defrosting, he added, is to cut down the time element involved to prevent a rise in the temperature of the foods under refrigeration.

Questioned as to whether automatic defrosting "could be applied to a conventional ice cream cabinet," the speaker said he'd never seen it done.

"You usually have no drain in such a cabinet so automatic defrosting wouldn't be practical," he suggested.

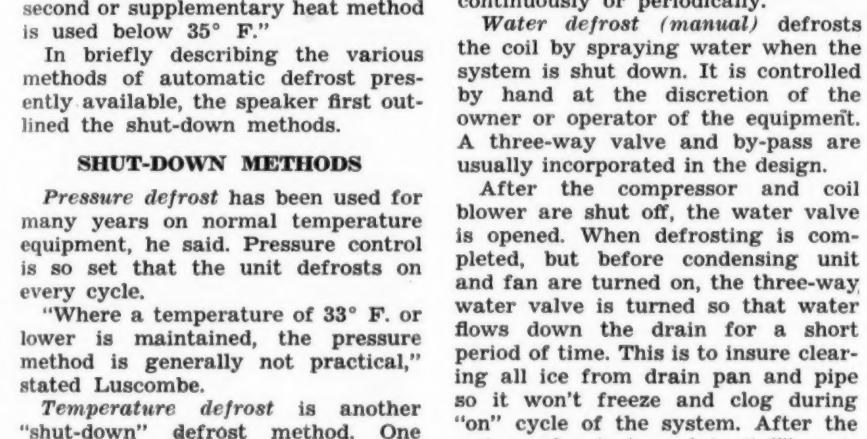
"In a reverse cycle defrost system, what would prevent strainers from throwing the material they collect back in the opposite direction when the cycle is reversed?"

The answer here was to locate the strainer in a line where the flow wouldn't be reversed during the defrosting cycle.

Here's One Way:

Defrosting can be accomplished automatically by several methods, including the system devised by Lehigh which is built into the condensing unit. Here Oliver Kesti of Lehigh is demonstrating such a unit before the Greater Detroit RSES.

Get this Lipman "PACKAGE OF PROFITS" MERCHANDISING BOOK



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JUST ASK US!
Turn to "What's New" page for useful information.

$250,000 Bell & Gossett Laboratory Completed

CHICAGO—Bell & Gossett Co.'s new research laboratory located adjacent to the company's plant at Morton Grove, has been completed and equipment now is being installed, R. E. Moore, vice president, announced recently.

Consolidating B & G's present research and development departments, the new $250,000 laboratory is one of the largest research operations in the heating industry, according to the announcement.

The new building is being provided with "extensive proving ground equipment for current production," Moore said, "as well as chemical and metallurgical laboratories, and unique shop equipment which will permit experimental and developmental work and pilot production of new heating and refrigeration products without interference with production of the company's normal goods."

Including mezzanine space for library, storage, and laboratory expansion, the 74-ft. by 162-ft. building has total space exceeding 18,000 sq. ft.

Equipment for the laboratory structure itself will provide opportunity for performance evaluation of the various heating and refrigeration systems for which B & G produces basic components.

The shop and test areas are heated by radiant panels in concrete floors, while the laboratories will have individual controls and special piping to permit the use of all types of radiators, convectors, baseboard, floor, or ceiling panels for experimental purposes.

Servicing Hermetics In the Field

This is another in the new series of articles written to show the average serviceman how to service hermetic units in the field. Even those who have been working on hermetics for some time will find basic and practical information in these articles that will prove extremely helpful.

How To Check the Compressor of Hermetic System-2

By Arne Perttola, Owner and Manager
Brighton Hermetic Service, Detroit

CHECKING FOR GROUNDS

The compressor assembly should also be checked for grounds. This can be done with a test light and the test cord. Plug the test cord into a power source. Fasten clip No. 1 of the test cord to any terminal on the compressor. Fasten clip No. 3 to one leg of the test light. Touch the other leg of the test light to a bare metal spot on the compressor housing.

If the test lamp lights up, the compressor is grounded. This condition of grounding will not necessarily be apparent because such a grounded unit will continue to run almost perfectly as long as the cabinet doesn't touch any ground. This condition, however, could give a fatal shock to the user. Therefore, the unit should be replaced or rebuilt.

Should the compressor fail to start when the pushbutton is pressed, and an overloaded or overheated condition has been corrected, it may be that the compressor is still good but is stuck. Quite often a unit that is stuck due to overload or an overheated condition can be started with a quick jolt of 220-volt current. Instruments providing 220-volt current for such purposes are on the market.

Hermetic units having split-phase motors will be helped in starting under these conditions by the capacitor in the test cord.

If there is no reading on the ammeter until the starting button is pressed, this indicates an open running winding. This condition cannot be remedied in the field.

HOW TO TEST CAPACITORS

With the capacitor-start units, a defective capacitor would not permit the unit to start. Failure of the capacitor is not unusual.

To check a capacitor in the field use a test lamp. Place the test lamp in series with the capacitor in a 110-volt circuit. If the lamp lights up, the capacitor is shorted or defective.

Another check for the capacitor is to touch the leads momentarily to a 110-volt line and then touch the two leads together. A spark or flash would indicate that the capacitor is apparently good. Such a test does not give an accurate check on the capacity of the capacitor, but it is generally sufficient for field service.

FAN MOTORS

Defective condenser fans can cause the compressor to appear defective. Therefore, when testing a hermetic compressor, the fan should always be disconnected.

The Westinghouse fan is the most difficult for the average serviceman to understand. Once understood, however, its operation is quite simple. If the starting winding contacts on the Westinghouse relay (Fig. 7) do not cut out, the fan will not operate. Likewise, if the starting winding is shorted, the fan will not operate.

Quite often the serviceman sees that the fan is inoperative but fails to check the relay to see whether the starting winding cut out. He usually replaces the fan, which is obtainable only through Westinghouse and may not always be in stock. If the fault were with the relay, however, the new fan would not operate either. Always check the relay first if the Westinghouse condenser fan doesn't operate.

Another tricky fan is the three-wire Delco, commonly used on Coldspots. This is a parallel-series fan. The three leads are coded red, white, and black. The red and black leads are in parallel with the unit circuit, while the black and white leads are in series with the unit circuit.

It is possible to substitute a two-wire fan if the three-wire fan is not available, provided that the proper change is made in the wiring. The two wires of a two-wire fan must be hooked up in the same positions as the red and black leads of the three-wire fan. Then the wire that was connected to the white lead of the three-wire fan must be connected to the black lead. This hookup is shown in Fig. 12.

When checking a three-wire Delco fan, do not place the black and white leads directly in series in the circuit.

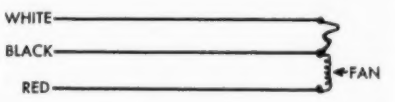


Fig. 12—A 2-wire condenser fan can be substituted for a 3-wire fan if the white lead is connected to the black lead.

The red lead should be one leg of the line and either the black or the white lead can be the other leg of the circuit.

Don't try to check both the black and white circuits at the same time. Check with the black lead in the circuit first and then check with the white lead in the circuit. The red lead would be one leg of the circuit in either case. Be sure to check both circuits, however.

The G-E three-wire fan operates in parallel with the unit, very much the same as the Westinghouse fan.

FANS SHOULD BE OILED

Incidentally, condenser fans often wear out before they should because they are not oiled. Servicemen would do well to oil such fans every time they're called in to service a hermetic refrigerator.

The oil hole on Westinghouse condenser fans is on the side instead of the top of the fan motor. A screw fitted flush with the housing has to be removed before oil can be applied. Replace the screw after oiling.

Delco fans have a similar oil hole closed with a screw. It is located on top of the motor, however. G-E fans can be oiled through a knockout in the back after the knockout has been removed.

Carrier-Bock Opens New Ft. Worth Headquarters

FORT WORTH, Tex. — Carrier-Bock Co., formerly located at 201 W. Magnolia St., has opened its new offices and showrooms at 1251 W. Magnolia St. Harry Cohn is manager of the Fort Worth branch of Carrier-Bock Co., which engineers and contracts Carrier equipment.

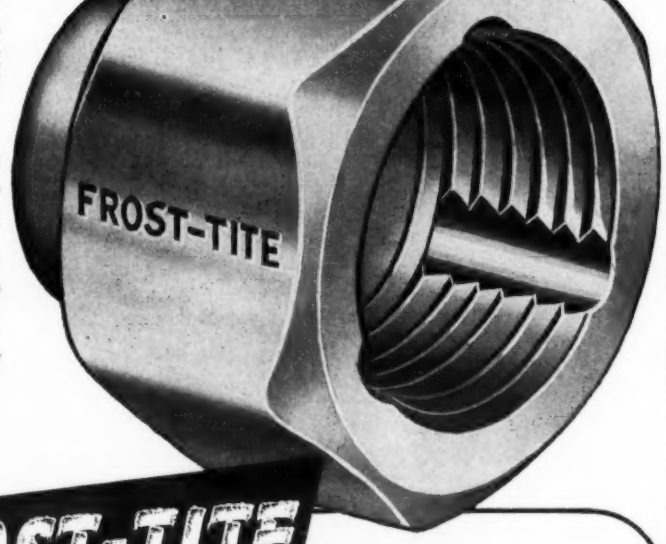
Here's the Truth
about losses from unrelieved flare nuts that creep loose!

Unrelieved flare nuts, when subjected to alternate frosting and defrosting, do "creep" loose. Actually, the "creeping" loose is caused by the "heaving action" resulting from the freezing water trapped between the flare nut and fitting.

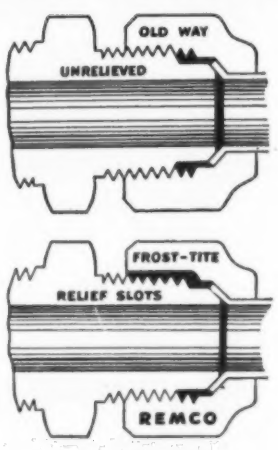
When water freezes to become ice it MUST have room to expand. If there is no room for expansion — or relief — the flare nut will work or "creep" loose.

When unrelieved flare nuts are subjected to this tremendous "heaving force", 1) refrigerant leaks *out* of the system, and 2) water is forced *into* the system.

Installing REMCO FROST-TITE with forged relief slots will insure against these costly losses.



Get REMCO's FROST-TITE



To Assure GREATER PROFITS

Note how in the top diagram, an old-style unrelieved flare nut can loosen up because water can completely fill the space between the nut and the fitting . . . then during the "ON" cycle, this water freezes and expands, creating a tremendous heaving force which causes the nut to loosen or crack.

Not so in Frost-Tite (bottom diagram) with forged frost-relief slots. Here relief is provided for the expanding ice . . . no force is created, and thus there can be no loosening, splitting, or cracking.

Frost-Tite Flare Nuts cost no more than ordinary unrelieved flare nuts — are a "Must" for lowside connections, should be used everywhere in the system.

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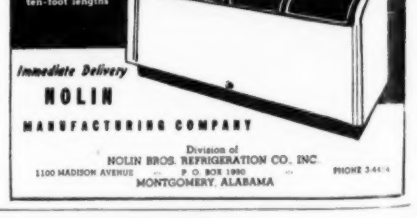

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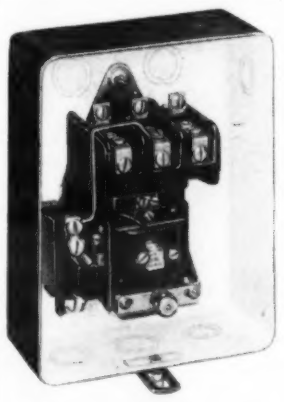

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QUALITY
MOTOR CONTROL

HONEYCOMBED WITH WINDOWS, the Peachtree-Seventh bldg., Atlanta proved a problem to air condition both from the standpoint of comfort and finances. Mounting building costs almost eliminated cooling. Water tower mounted on roof which handles 1,875 g.p.m. helped to economize.

LONG SINGLE CELLS were constructed with ductwork and side-throw discharge vents running down the center. These cells will later be sectioned into offices to meet individual space demands. Ductwork will remain exposed.

Beating High Cost of Building

Large Atlanta Office Building Shaves Air Conditioning, Heating Costs by Using Small Structure Design Principles

ATLANTA — The Peachtree-Seventh building here may never go down in the records of air conditioning and heating files as the ultimate in modern design concept; but it will ring the gong loudly in its proclamation to those that say rising building costs in large office-type structures are all but eliminating air conditioning as well as all but the simplest methods and equipment in heating.

The building is be occupied, with the exception of the retail store areas, and maintained exclusively by the federal government and its various agencies. It was built by the Peachtree-Seventh Corp., a Ben Massell affiliate.

SHADING SCREEN LOWERS TONNAGE ESTIMATES

Designed by Alexander-Rothschild, architects of Atlanta, the building called for air conditioning and heating a net usable, rental space, exclusive of the retail store areas which are heated but not air conditioned, of 284,000 sq. ft. The architects, cleverly anticipating heat gain problems, included in their design the use of aluminum outside shading screen, which proved to be a boon in accomplishing lower tonnage when air conditioning costs were figured.

However, from the outset, and by cutting all corners, the cost of air conditioning under a rising material and labor market began to paint a fairly black picture until Spencer Boyd of Newcomb & Boyd, Atlanta's well-known firm of mechanical design engineers, began to apply sensible principles, normally reserved for much smaller structures, to a widened scope that would apply to such a large amount of area.

8-STORY, U-SHAPE DESIGN

The heat gain load calculations figured an undeniable 625 tons. Couple this with the fact that the building, designed in a "U" shape, rises eight stories in the air with 43,000 sq. ft. of ground area occupied and add to that the problem of providing maximum zone control for each floor (having two outside and one inside zone) and you have a fair idea of the magnitude faced by the mechanical design engineers. To pile burden on burden the normal bugaboo of multiple office service was added.

Under normal conditions such a chance could have been a designer's Utopia; an opportunity to slip in re-heat gadgetry, positive individual zone control and other things that promised insurance against possibilities of unbalance. Not this one, however, and with characteristic thoroughness the project was developed, designed, and installed as a floor-by-floor "main-line" air volume distribution system.

Allocating a characteristic six zones to each floor and eliminating the corridors as discharge areas by using them as return-air facilities, two fan rooms were installed on each floor. The fan rooms of course became plenums, with Trane model OS combination cooling-heating coil sections located within the area. The blowers required varied between the smallest of 3,200 c.f.m. and the largest rated at 7,900 c.f.m.

Specific use and allocation of modulating dampers was included as the first step in accomplishing modulated control. The problem of supplying a cooling cycle to the inside zone when at the same time allowing heating to take place on the outside zones, dictated long range planning in modulation.

DUCTWORK EXPOSED

Firring-in of ducts in the occupied area once again fell victim of costs; as a result, all ductwork in these areas is exposed. The high return-air duct, occupying the ceiling of the corridors, however, did survive and is firred in. Regular side-throw discharge was utilized with individual office selectivity provided for by the use of Sanitrols and face dampers.

To provide chilled water to the air-handling cooling sections, a 600-hp. York centrifugal compressor was installed. Here a somewhat unorthodox design feature was used resulting in additional savings; a 14° water differential was decided upon instead of the normal 10°. The water is circulated at 1,070 g.p.m. at 48° off. It takes two 15-hp. and one 50-hp. pumps to accomplish the circulation.

A Water Cooling Equipment Co. water tower is located on the roof and handles 1,875 g.p.m. with a reduction of 95° water to 85° at a w.b. of 77°.

Hot water, for heating purposes, is supplied to the Trane air-handling units by monstrous boiler equipment located in a room in the basement adjoining that where the compressor is located.

The final outcome of this "nut" that was cracked was, that the total air conditioning cost amounted to $234,000 in round figures, with the combined cost of cooling and heating being accomplished for $271,400. Calculated down this reveals that the air conditioning amounted to 83 cents per square foot; the combined cooling-heating cost figures 96 cents per square foot.

Three hundred and seventy-five dollars per ton is, in this market today, mighty apt designing, particularly when compared to the original estimate and figures of between $600 and $700 per ton.

It is believed that this building is one of the largest south of Washington, D. C., to be adapted to a volume system, certainly it is one of the largest in the southeast area.

The job of installation was given to the Huffman-Wolfe Co. of Atlanta.

Adapting the use of pnuematic controls to the intricate control system, Newcomb & Boyd selected Johnson Service Co.'s air system, locating most of the controls in panels within the plenum areas.

MORE INFORMATION?

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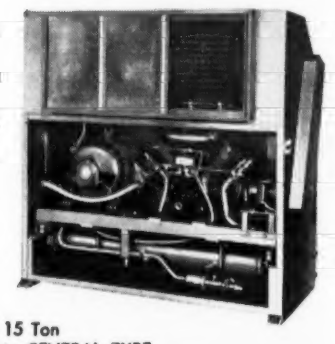
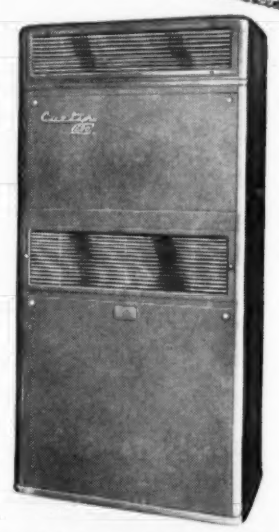


10 and 15 Ton Complete CENTRAL TYPE



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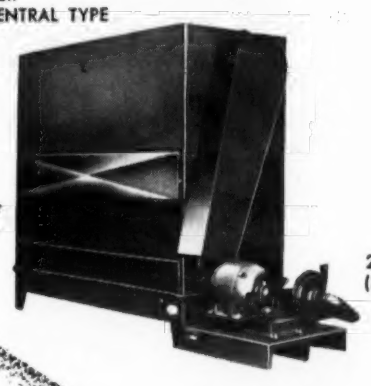

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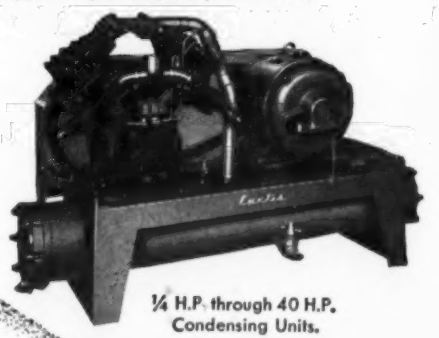

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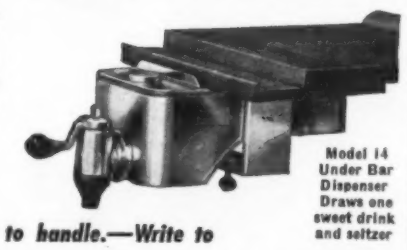

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Current Literature Available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

Dravo Bulletin Tells of 'Counterflo' Heaters

—KEY NO. M-530—

PITTSBURGH — Dravo Corp. has announced publication of Bulletin 526 describing Dravo "Counterflo" direct fired space heaters in a range of gas or oil fired models with outputs from 400,000 to 2,000,000 B.t.u. per hour.

Highlighted in the bulletin is a chart comparing steel requirements for the installation of these heaters with other commonly-used systems. In most cases, the bulletin claims, steel needs for heating systems can be reduced substantially through the use of direct-fired warm air heaters.

Sherer Has New Catalog Page on Self-Serve Case

—KEY NO. M-531—

MARSHALL, Mich.—Sherer-Gillett Co. here, has recently issued a catalog page on the new Sherer model 3008C, 8-ft. open self-service frozen food case. The page lists outstanding features, gives description and complete specifications.

Tekni-Craft Describes Current Freezer Models

—KEY NO. M-532—

ROCKTON, Ill.—Two new pieces of descriptive literature on its 1951 models of ice cream and custard freezers have been announced by Tekni-Craft here.

One is a booklet with illustrations and specifications on all eight of Taylor's 1951 ice cream and custard freezers, as well as an illustration of the new Tekni-Craft factory occupying a 19-acre site just north of Rockton.

Before displaying the new models, the booklet advises the prospect to demand a demonstration and to operate a freezer himself before buying.

The other is a 4-page folder containing complete details on the new model 77—an automatic continuous freezer.

Both the new booklet and the folder, as well as a copy of the booklet "Little Stories of Big Successes," are mailed to everybody who inquires about Taylor freezers or the profits to be made from ice cream and frozen custard.

Patterson-Kelley Catalog On Expansion Coolers

—KEY NO. M-533—

E. STROUDSBURG, Pa.—Patterson-Kelley Co., Inc., manufacturer of refrigeration and heat exchange equipment, has just issued a 12-page illustrated catalog devoted to "Freon" or ammonia coolers of the dry expansion type.

In addition to describing the standard line of P-K coolers, the catalog contains charts and tables showing cooling surface required for capacities from 2 to 232 tons of refrigeration at water flow rates from 15 to 575 g.p.m. and for various baffle spacings in single and two-circuit designs.

A log mean temperature table, cooler selection data, dimensions, pressure drops, and typical piping arrangements are also included.

Illustrated Bulletin Shows Metallizing Gun

—KEY NO. M-534—

CHICAGO—A new 20-page bulletin on the Mogul Metallizing Gun, subtitled "Production-Maintenance Miracles Now with The Metallizing Gun of Tomorrow," has just been published by the Metallizing Co. of America, here. Bulletin is fully illustrated and tells how this process aids in fighting corrosion, rebuilding worn parts, and reclaiming mismachined castings.

Gov't Procurement Data In New Filtrine Folder

—KEY NO. M-535—

BROOKLYN—How to meet Federal requirements for water cooling and conditioning equipment now being employed in barracks, mess halls, photo labs, and other installations of the rapidly expanding defense program is presented by Filtrine Mfg. Co. in a new folder which also exemplifies government procurement data on water coolers and water filters.

The new folder offers a guide to efficient procurement and points out to refrigeration suppliers successful short cuts to assuring Federal acceptance of approved material.

In bidding these "DO rating" jobs, with any make condensing unit, refrigeration suppliers are enabled by means of the new Filtrine folder (Form 851) to quickly relate official requirements to correct model coolers of pre-accepted standards of manufacture.

All information is brief and direct and correlated by number to standard requirements. Tabulated capacities provide an index to selection of approved coolers, job-rated for all applications.

The new folder which briefly covers the full range of standard electric water coolers used by Federal agencies, Army, Navy, Marine Corps, and Air Force as well as water filters used in military and V. A. administered X-ray and photo labs is currently available on request.

Accessories Bulletin Published by Bristol

—KEY NO. M-536—

WATERBURY, Conn.—The Bristol Co. here has published a new edition of its thermocouple and pyrometer accessories bulletin, P1238, listing many additional items and containing new data on the proper application and use of thermocouples.

The 56-page bulletin contains an illustrated catalog of hundreds of pyrometer supply items, including assembled thermocouples, thermocouple wires, extention wires, protection tubes, insulators, and accessories for the full range of industrial pyrometer applications.

New technical information and installation sketches have been added to the "Users' Manual" section, which contains engineering data on modern practices in pyrometry. Also included are tables of calibration data for the commonly-used base metal and rare metal thermocouples.

REFRIGERATION ENGINEERS
For supervisory and project work on household units and home freezers.
Address Replies to:
HOTPOINT, Inc.
Personnel Division
5660 W. TAYLOR ST.
CHICAGO 44, ILLINOIS

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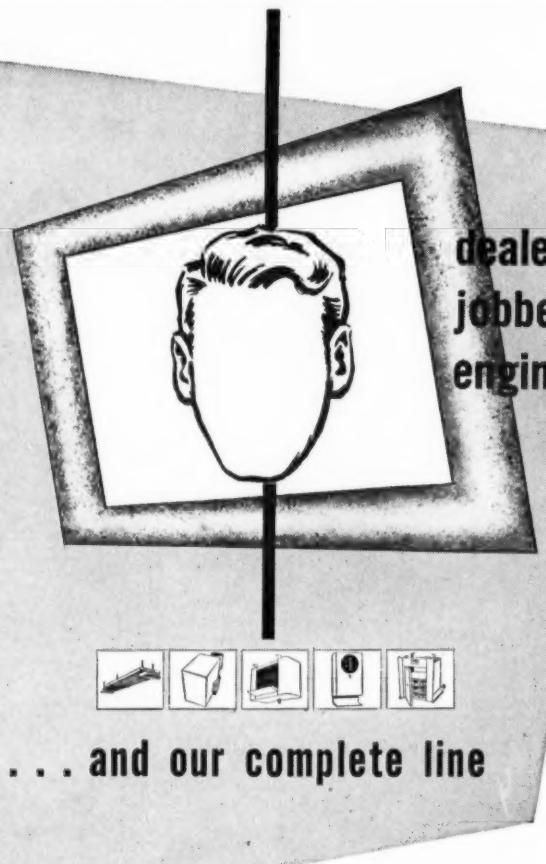

dealer?
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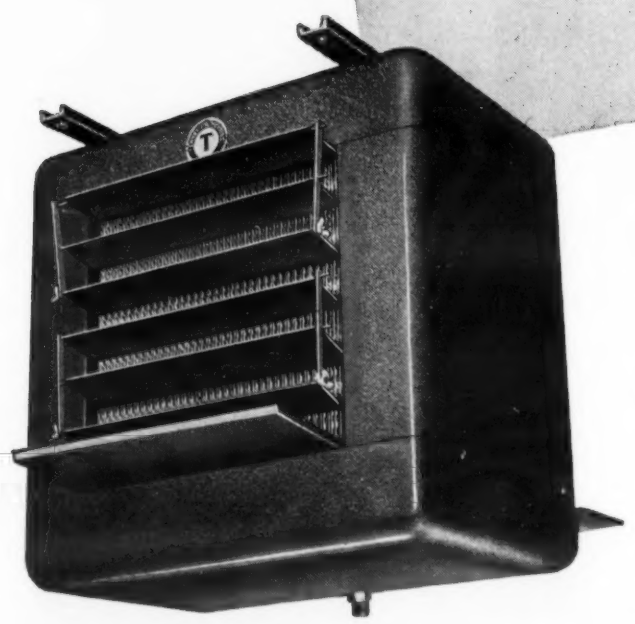
. . . and our complete line



Tenney Unit Coolers are typical of Tenney's scientific design and ability to meet the needs of any type of installation, large or small. They look and are modern. They have the correct ratio of prime to secondary surface with a staggered arrangement and rifled interior for highest efficiency. They have added surface and assured defrost cycles plus "sweat" elimination and safe comfort cooling. They have extra capacity, variable direction of airflow, non-leak joints, positive fin to tube bond. And—they're easy to install. You can't go wrong with Tenney.

Remember—you always get more from Tenney. Literature and further information on request. ***Write to Tenney Engineering, Inc., Dep't. E, 26 Avenue B, Newark 5, New Jersey.***

No matter how you fit into the picture, you'll benefit with Tenney. Only Tenney brings you the advantages of advanced engineering, of manufacturing facilities that can handle any and every job, of a line that is complete in every detail.

Are you a dealer? You get the benefit of equipment that is engineered and built to win the confidence and approval of your customers—equipment that establishes your reputation for complete dependability.

Are you a jobber? When you handle the Tenney Line of refrigerating equipment, you handle a line unexcelled in variety—a line that enables you to meet every requirement of your customers, no matter how out-of-the-ordinary. And you operate under a franchise that assures you full profits plus the full support of an aggressive, promotion-conscious company.

Are you an engineer? You benefit from the cooperation of a staff of refrigerating engineers who do not only know all the angles, but what makes up the angles as well. You benefit by working with a team of specialists in designing and building equipment for non-routine installations.

TENNEY ENGINEERING, INC. U.S.A.
Tenney
Manufacturers of Automatic Temperature, Humidity and Pressure Control Equipment 7155

New . . Improved . .

ANSUL REFRIGERATION OIL

THE NEW . . . IMPROVED . . . ANSUL REFRIGERATION OIL . . . IS A RESULT OF THE PERSISTENT SEARCH BY ANSUL CHEMISTS AND REFRIGERATION TECHNICIANS FOR THE FINEST QUALITY REFRIGERATION OIL . . . AT ANY PRICE!

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ANSUL SULFUR DIOXIDE, ANSUL METHYL CHLORIDE, ANSUL OIL, KINETIC "FREON" REFRIGERANTS
ALSO MANUFACTURERS OF INDUSTRIAL CHEMICALS AND DRY CHEMICAL FIRE EXTINGUISHERS

What Was New

At the National Restaurant Show

—KEY NO. A-530—

Jane Casey demonstrates to Mac Berns of Northland Refrigerator Co., Chicago, that the new Jordon Refrigerator Co. "Ice Cream Mart" is not only a glass-front low temperature display case for ice cream and other frozen products, but that it also incorporates a merchandising superstructure that holds and sells related products such as ice cream cones and other items.

—KEY NO. A-533—

Victory Metal Mfg. Co.'s model SVA-36 refrigerated sandwich unit with refrigerated base is shown by Al Dubov (right) to Mrs. P. B. Johnston, wife of a National Restaurant Association official; M. L. Finney, Jr., Factory Agencies, Chicago; and Mrs. R. L. Thomas, Kansas City restaurateur.

—KEY NO. A-535—

A "3-in-1" dispenser of carbonated beverages is demonstrated by F. W. Bailey of Carbonic Dispensers, Inc. for Hugh Ross (left) of Detroit and A. D. Beam. This dispenser system produces three kinds of properly carbonated mixed and refrigerated beverages, at a cost considerably below that of bottled beverages, the manufacturer claims.

More pictures from the National Restaurant Show will appear in a following issue.

—KEY NO. A-531—

Dean Skall presents Lee Gaye with a hot roll from Hotpoint's new roll and bun warmer with built-in flavor retainer. This new appliance is designed to be placed on a Hotpoint standard commercial cooking base unit, to which many other cooking devices are adaptable.

—KEY NO. A-534—

LEFT: A special syrup pump lever that affords added leverage for pumping chocolate syrup in 1951 model Phenix soda fountains is demonstrated by Marvin Weisberg, executive of the Phenix Soda Fountain Co.

—KEY NO. A-536—

RIGHT: How the "Crystal Tip" ice cubes are made automatically by the American Automatic Ice Machine Co.'s automatic ice cube maker is observed by Jerry Meyden.

—KEY NO. A-532—

William Bohnet watches as Nancy Kanold tests the temperatures in a refrigerated storage drawer, which is a part of Star Metal Mfg. Co.'s refrigerated sandwich unit in stainless steel.

Information Center

For *more information* on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

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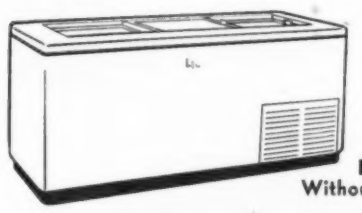
MODEL DC-16-3D
With superstructure and colorful, 3-dimensional pictures.

Here's one frozen-food case that rates a place on every dealer's floor. It's Brewer-Titchener's DC-16 . . . one of the most popular, most profitable cabinets in the entire BTC line.

SO MUCH STORAGE SPACE 16 cubic feet of storage in a floor area only 76" by 28" . . . thanks to BTC's new vapor-sealed insulation!

SO SMART-LOOKING TOO Trim lines, gleaming-white finish and stainless steel capping make it an outstanding attention winner!

What's more, Brewer-Titchener's DC-16 offers all of these wonderful features: all-steel Bonderized cabinet; three Thermopane rolling glass lids; ⅓ H.P. hermetic compressor; plus a 5-year compressor and 2-year food spoilage warranty. Get the full facts on this Model DC-16 Display Case by writing Brewer-Titchener today!



MODEL DC-16-3
Without superstructure.

THE
BREWER-TITCHENER
CORPORATION
Binghamton • New York

What Was New

At the National Restaurant Show

——KEY NO. A-537——

The "Minut-Bun Barbecue Bar" gets a trial from Ruth Peppel as Chet Graubner of Man-U-Tech Sales, national sales distributor of the item, looks on. The "Barbecue Bar" shown here is designed to make 240 hot sandwiches every hour. Buns are toasted on the toaster heads.

——KEY NO. A-539——

Pan Newton lifts a fruit cup from C. V. Hill & Co.'s open display and service case for use in displaying and handling appetizers, salads, and other restaurant dishes. This mechanically refrigerated case eliminates the need for use of crushed ice and maintains temperatures of 32° F. or lower. Paul B. Harrison of the company explains that the model comes in 9-ft. and 11½-ft. lengths and is cooled from below and the back.

——KEY NO. A-5310——

Jerry Meyden operates the sliding, non-sweating glass doors in the Traulsen & Co. model RFD 1030 reach-in refrigerator for restaurant or bakery use, as Chet Battles, manufacturer's agent from Crystal Lake, Ill., looks on. This stainless steel refrigerator is self-contained and has a ceiling-mounted blower coil.

——KEY NO. A-5311——

Infrared broiler and grille is explained to Joanne Jones by J. E. Green of Radiant Ray Corp., Seattle, Wash. Maker says it will roast and brown with 750 watts (110-volt current) and a maximum output (1,500 watts) will cook a roast in the same amount of time as the conventional oven.

——KEY NO. A-5312——

Demonstrating the pass-through possibilities of Puffer-Hubbard Mfg. Co.'s model P-42 "Pass-Thru" 42-cu. ft. restaurant service refrigerator is Lee Gaye. This model has upper doors on service side, and upper and lower doors on the kitchen side.

——KEY NO. A-5313——

The Smith-Werner Co. "Serv-All" soda fountain section which drops into a standard ice cream cabinet is demonstrated by Werner Livingston to Renee Bramen. By removing two lids from the cabinet, the soda fountain unit can be fitted in. A carbonated water line is attached to a fitting located behind the draft arm. Correct temperature for the water bath and syrup containers is accomplished through a baffle-plate arrangement.

——KEY NO. A-5314——

Deep-fronted refrigerated display case for restaurant, candy, bakery, or florist shop application, made by Loudon Mfg. & Sales, Inc., is shown to Donna Kime by Gordon Lynch. It's a double-duty, self-contained model with mirrored glass doors.

Washington's Lencshire House Air Conditioned by FRICK

The 126 apartments in this new 8-story building on Wisconsin Avenue are kept cool and comfortable by three Frick refrigerating machines. Evaporative condensers, placed on the roof, save 95% of the water otherwise required.

Frick Evaporative Condensers Save Water

Installation by Harvey W. Hottel, Inc., Frick Distributors of Washington, D. C.

Lencshire House was built and is owned by The Lenkin Construction Co.

A Frick air conditioning unit (of 5 or 7½ hp. size) or a central system like that at Lencshire House, will increase profits in your business. Consult your nearest Frick Branch Office or Distributor today.

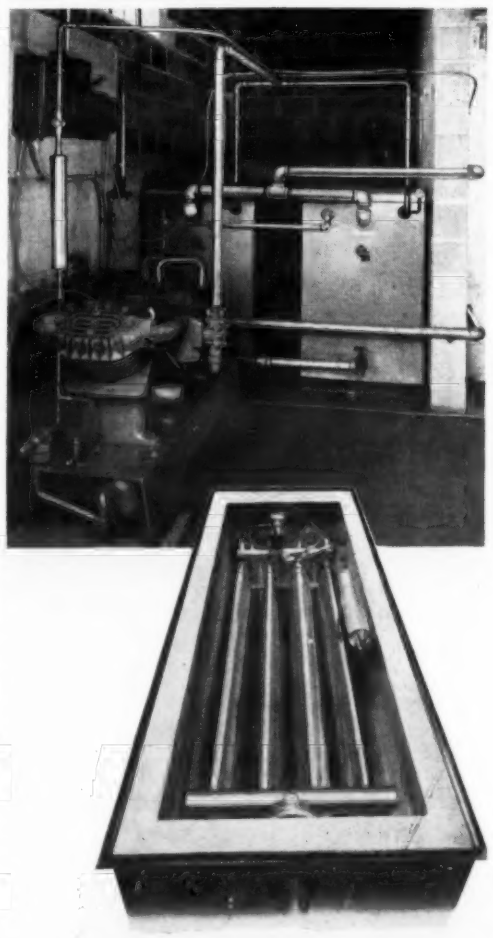
FRICK CO. WAYNESBORO, PENNA. U.S.A.

Also Builders of Power Farming and Sawmill Machinery

Three NEW "ECLIPSE" Compressors in Service at Lencshire House

——KEY NO. A-538——

Posing prettily with Tyler Fixture Corp.'s 30-cu. ft. low temperature frozen food reach-in refrigerator is Jane Casey. A large variety of frozen meats, fruits, vegetables, and bakery goods for the restaurant trade were on display at this year's National Restaurant Show.



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There's no doubt about it, you can sell comfort cooling this season. DOLE Ice-Cels are just the low-sides you need to handle air conditioning in auditoriums, lodge halls, cafeterias, churches, retail stores, office buildings, mortuaries—in fact any spot where peak loads are of short duration—a few hours a day.

Ice-Cels have always shown savings both in initial investment and in operating costs. With these 3 *new*, improved designs, economies are even greater.

For further data on DOLE Ice-Cels and suggestions as to how you can uncover prospects, write today for complete information and prices.

DOC DOLECO *says*—

To get more air conditioning business just tell your prospects "we sell DOLE Ice-Cels."

DOLE manufacturing facilities including modern machinery and experienced personnel for sheet metal working are available for handling Government orders. We invite your inquiries.

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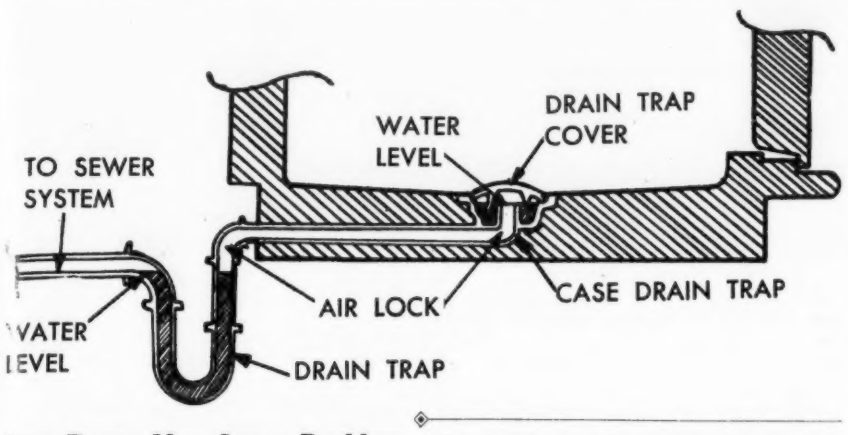
SLANTS on Service

"Slants on Service" is a new "package" devised by the NEWS to meet the needs of its busy readers in the service and contracting business. These helpful hints and suggestions for improved service methods and shortcuts have been assembled in capsule form.



Two Traps May Cause Problem Of Drainage In Cases

Drains and drain traps in refrigerated fixtures may be a source of trouble, points out John Spence, Hussmann service manager. Most manufacturers install "bell traps" in the cases which are designed to make a water seal when the cap is installed. This keeps out sewer gases and other odors.

The bell trap gives satisfactory performance if it is kept clean, and if there is no other trap in the drain. If a drain trap has also been installed by the plumber, an air lock will develop between the trap in the line and the bell trap so water will not drain from the fixture.

To overcome this difficulty either remove the cap on the cover of the bell trap or drill a hole through the cover of the bell trap. This relieves the air lock.

* * *

Length of String Helps In Replacing Controls

A piece of string will prove of considerable help in replacing the control on later model Westinghouse refrigerators.

First remove the back panel, and then take off the control button from the front. Using a strong cord, pull the spring clips together and tie them securely. Be sure to leave plenty of string. The control is then pulled out through the back, after the insulation has been removed.

Fasten the new control to the spring clips. Pulling the string from the front will pull the control into position. The spring clips are released by cutting the string.

* * *

Reversing Water Flow Cleans Clogged Cooler

Reversing the flow of water through a water cooler will help clear up a clogged line. This is not difficult to do if the water cooler is equipped with a remote cold water outlet. Just remove the plug from the remote outlet; disconnect the input plumbing and reconnect to the remote outlet.

It is advisable to flush a considerable amount of water through the remote outlet after the water cooler has been properly reconnected to remove any sediment. It would be well, too, to install a strainer in the incoming water line to prevent future clogging of the cooler.

* * *

Turn Wire Brush In Clockwise Direction

When using a wire brush to clean the inside of a fitting prior to soldering, turn the brush clockwise only. This will prevent breaking off any bristles, which can happen if the brush is turned the opposite way.

Sandpaper is the best substance to use in preparing the outside surface of a tube for soldering.

How To Break Even on Your Service Dept. By Using Bonus Plan for Paying Repairmen

ERIE, Pa.—A repair man compensation plan which includes a bonus arrangement is helping the Winter Co. here to "break even" on operation of its 28-man service department.

Here's how the plan works, according to B. W. Mehler, service manager for the large appliance, television, and radio dealership:

A typical refrigerator mechanic, for example, is paid $1.25 an hour flat rate if he is repairing a refrigerator under warranty. If, on the other hand, the box is out of the warranty period, his pay amounts to two thirds of the labor charge, plus 10% of the parts price.

Each man gets a "drawing account" of $50, and is required to work 48 hours for that pay. All other income earned for the firm after the 48 hours results in "bonus pay."

The "bonus pay" amounts practically to time and a half, Mehler pointed out, inasmuch as it is roughly equivalent to compensation for three calls while the mechanic is making only two.

Remaining profit on parts and labor goes toward upkeep of the company's trucks, general expenses of the service department, and paying "non-revenue" employes. The latter are parts room men, a paint spray room operator, handyman, etc., included in the 28-man staff. In this way, a large volume of "revenue" service calls is usually equal to the non-revenue salaries.

The service department is operated with no investment in vehicles, inasmuch as all drayage of heavy appliances is done by a commercial trucking firm, and mechanics drive their own cars.

Each mechanic is paid approximately 26 cents for each 10 miles appearing on the speedometer of his automobile. While this amounts to better than $2,500 per month the year-round, freedom from breakdowns, tire repairs, gas and oil handling make the practice extremely worthwhile, Mehler has found.

"We show a big saving each month through the use of commercial haulage firms," he indicated, "and this saving is fed right back into the operating overhead of the service department."

The firm does not perform general refrigeration service work. Instead, repairs are concentrated entirely on the large volume of appliances which are sold by the firm.

Service charges maintained by the Winter Co. are $3 per hour, with a minimum call rate of $2.50.

The company has stuck to its $3 rate, which is only a few cents more than the prewar rate, despite increases by some service firms. As a result, it gets a heavy volume of service calls, which translates into economical operation.

Harry C. Higgins, Inc. Moves

MIAMI, Fla. — Harry C. Higgins, Inc., local air conditioning and refrigeration firm, has announced that it has moved to 3112 N. W. 36th St.

TAKE ADVANTAGE *of* DEVALUATION

LEC REFRIGERATOR SEALED UNITS ALL VOLTAGES

THE LECOMETIC

THE BEST

Now available for the trade at keen prices either with body and starting relay only or complete, ready for immediate installation as depicted above, the "LECOMETIC" suitable for ambient temperatures up to 110° F.

We can offer standard open type condensing units. Also the LEC range of domestic cabinets.

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The Combination Sight Gauge-Drier

As sure to win as a pat hand is your quick diagnosis of refrigeration trouble with the Cee-Kleer Sight Indicator. Here is ***full vision*** from any angle — completely around the sight gauge. You can spot trouble instantly.

Combination Cee-Kleer Sight Drier helps you handle service calls faster, more effectively and with greater satisfaction to your customers. Every service job builds more business when you use CEE-KLEER.

Every Cee-Kleer Sight Drier, Sight Gauge Indicator or Refillable Drier is unconditionally guaranteed to be satisfactory.

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The unquestioned standard of the industry for complete automatic defrosting at temperatures below 32°

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A COMPLETE LINE FOR HOMES AND BUSINESSES

The complete Coolair line includes wall and window units, single and twin attic package units, and commercial and industrial units up to 9′ blade diameter.

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A market area large enough for real money-making opportunities is yours under your Coolair Franchise.

SALES TRAINING THAT MEANS SOMETHING!

Factory supervises training of authorized dealer personnel. Profits from your Coolair Franchise start right away!

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Up-to-the-minute Coolair advertising and promotion help pave the way for profitable sales.

HERE'S LOW-COST COOLING FOLKS WILL BUY! THIS SALES PLAN BOOSTS YOUR PROFITS HIGH!

Get your share of cooling profits by mailing this coupon TODAY. No obligation.

AMERICAN COOLAIR CORPORATION

Leaders in Air Cooling for 23 Years

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Please RUSH us more information about the Coolair proposition for 1951. We are interested in ( ) a dealership, ( ) a distributorship.

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Refrigeration Problems

and their Solution

by Paul Reed

For Service and Installation Engineers

Paul Reed

Insulation: Selection And Installation (2)

CELLULAR STRUCTURE OF INSULATIONS

Insulations, those materials whose "k factors" fall between .20 and .50 B.t.u/sq./ft./°F./hr./in., get their ability to retard the flow of heat, from their cellular construction. The material consists of millions of tiny air cells. "Dead" air is a very poor conductor of heat (its k factor is .18), and it is chiefly the air in these tiny cells that is actually the insulation. Air, to be a good insulation must be broken up into these millions of minute air cells.

Just making a wall of two thin sheets of some material with an air space between does not make a well insulated wall, for air movements called "convection currents" carry the heat through the wall; but this will be discussed later. The fact is, that the space must be broken up into millions of very small air cells in order to prevent convection currents, and to effectively retard the flow of heat through the wall.

VEGETABLE INSULATIONS

For many years, cork was considered the standard insulation, and it is still very highly regarded. In recent years it has been very largely supplanted in many applications by less expensive, lighter, and easier-to-use insulations.

Cork is the bark of a tree grown in Spain, Portugal, and some of the South American countries. Cork bark consists of millions of tiny air cells. Cork may be used in its natural form, but commercially it is ground into small particles, and these particles pressed into boards of various sizes and thickness, or into shapes formed to fit pipes, valves, fittings, or tanks. The particles are held together by their own natural gum that acts as a binder.

Vegetable fibers from sugar cane, corn stalks, wood, bark, paper, cotton, and various grasses, are cellular. Ground or shredded, they are formed into boards or "batts," by using pitch or some glutinous material as a binder, or they may be used in loose form and packed or blown into the wall spaces.

ANIMAL, MINERAL, AND ARTIFICIAL INSULATIONS

Animal hair is "felted" into sheets or batts, or used as loose insulation. Such materials as mineral wool, rock wool, glass wool, asbestos, etc., are also cellular but in fiber form, and are formed into boards or batts, with a binder, or may be used in loose form.

In recent years, "foam" insulations, made from rubber, glass, or plastic materials, have become quite popular; they can be formed into boards or irregular shapes, are easy to use, and are comparatively inexpensive. Silica aerogel and vermiculite are loose materials that are also used in insulations; the former because of its light weight and low "k factor," and the latter chiefly in a mixture with concrete to lower the "k factor" of the concrete for floors, walls, and other structural parts.

SELECTION OF TYPE OF INSULATION

Board insulations are not used in refrigerators as much today as formerly. Aside from the initial cost, they involve considerable labor costs in installing them in the refrigerator walls; it is difficult to fit them exactly to the wall space, as open spaces at corners, bends, and irregularly shaped spaces must be filled in with loose insulation or binder; also, there is apt to be considerable waste of the insulation, although molding or pre-forming these insulations to exactly fit the spaces are frequently employed.

Batt insulations are widely used in refrigerator construction. They are relatively low in first cost, and are low in the labor cost of installing them in the refrigerator. Also, they can be "stuffed" in, and thus fill corners and irregular spaces.

Loose insulations are packed or blown into refrigerator walls. The latter practice is also employed in insulating walls and ceilings of old buildings, to reduce fuel and operating costs and to permit using the minimum size of heating or air conditioning equipment.

Board insulations are effectively used in larger cold rooms. They are sometimes pegged to the walls and ceilings or laid on floors. In fact, the walls may be built of insulation board, laid in courses and secured together and given a coat on both sides of cement to protect and further strengthen them. In such construction, no frame or other supporting materials are used.

There are many methods of insulating the walls, ceiling, and floors of the larger coolers or cold storage rooms. The best method depends not only on the structure in which they are to be used, but also on the peculiar characteristics of the insulation used.

Most insulation manufacturers have prepared installation pamphlets on how to use their insulation, and willingly furnish these to dealers and servicemen who expect to build a cold room or otherwise install those insulations.

In a following instalment the characteristics of insulations and suitability of various kinds for specific applications will be discussed.

(To Be Continued)

V. D. Dyer To Represent McQuay In Northwest

MINNEAPOLIS — McQuay, Inc., manufacturer of heating, air conditioning, and refrigeration equipment, has announced the appointment of V. D. Dyer as its refrigeration and automatic ice maker representative in the Seattle area.

Dyer will cover both Washington and Oregon, 10 counties in Idaho, and the province of British Columbia, Can.

Dyer has been in the field of refrigeration for many years, associating himself with manufacturers' representatives and West Coast jobbers.

Dyer Representatives are located at 1553 N. 37th, Seattle.

Eby To Head York Pacific District; Marshall, Stone Take New Jobs

YORK, Pa.—York Corp. has announced the promotion of three West Coast executives—W. R. Eby, Thomas A. Marshall, and Dow D. Stone.

Eby has been named manager of the company's Pacific district, succeeding Rodney F. Lauer who was recently elevated to vice president in charge of engineering and research.

W. R. Eby

Dow D. Stone

T. A. Marshall

Marshall, who was manager of the San Francisco branch office, replaces Eby as industrial sales manager for the Pacific district. Stone has been appointed branch manager of the San Francisco office, filling the vacancy left by the promotion of Marshall.

Eby joined York after graduating from the University of Arizona with a B. S. degree in mechanical engineering. Following an extensive course at the York factory, he was assigned to the Los Angeles office where he remained until 1934 when he was transferred to Seattle. He was appointed Seattle branch manager in 1945.

Eby has devoted much of his time to management functions, including disposition of the properties formerly held by the corporation there, and consolidating operations for improved operating efficiency.

Marshall joined York upon graduation from Stanford university in 1935. After completing the York training course, he returned to San Francisco. From 1942 until the latter part of 1945, he served as a captain with the Army Combat Engineers.

Stone, who attended the Engineering Trade School at Los Angeles, was elevated from sales engineer. He has been with York since 1942.

The promotions were announced by John R. Hertzler, vice president and general sales manager of York.

Timken Names A. E. Jones

DETROIT—Appointment of A. E. Jones as assistant advertising manager of the Timken Silent Automatic Division, Jackson, Mich., has been announced by R. M. Marberry, merchandising manager. Jones' new duties will include the writing and editing of *Timken Heat*, monthly house organ of the company.

A Sweet Job

Imperial Sugar Co. Cools Packing Room

SUGARLAND, Tex.—What is believed to be the first sugar packing room ever air conditioned was recently completed for the Imperial Sugar Co. here by Way Engineering Co. of Houston.

Two Chrysler Airtemp 50-ton compressors, a sprayed coil conditioner, and three zone reheat coils were installed for the job, reports, W. J. Way II of the contracting firm.

"We have been able to maintain the design conditions of 78° F. d.b. and 50% r.h., which is pretty hard to do down in the coast country," he says.

In the large room the sugar company packs an average of 1,200,000 lbs. of sugar per day, and the heat from the sugar had to be taken into consideration in calculating the load, due to the immense volume of sugar and the fact that it entered the room at 95° F., Way explains.

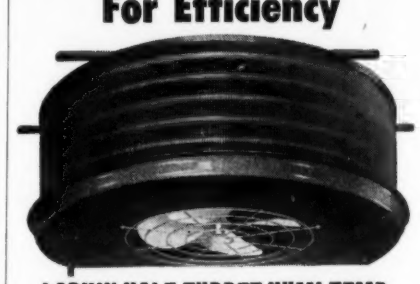
Granulated, brown, and confectioner's sugar are packaged, the latter giving the greatest trouble in getting in the return air stream.

"Upon starting up the system, we found that even though we were using 4 g.p.m .of water per sq. ft. of coil area, there was some sugar carryover; and even though the ducts were insulated with 1 in. of vegetable cork, at various points we had stalactites anywhere from 1 to 2 ft. long coming out of the duct," recalls Way.

"We went back in and put in filters which have to be cleaned about every day and a half."

LOOK to LARKIN

For Efficiency



LARKIN HALF-TURRET HUMI-TEMP

Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering—only the best materials—skilled craftsmanship—and almost 25 years experience in commercial and industrial refrigeration—all add up to higher efficiency for every Larkin product. And this means lower operating costs — important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil — Humi-Temp Units — Evaporative and Air Cooled Condensers — Air Conditioning Units and Coils — Direct Expansion Water Coolers — Steel Vacuum Plate Coils — Heat Exchangers.

WATCHDOG OF THE NATION'S FOOD SUPPLY

LARKIN COILS

519 MEMORIAL DR., S.E. • ATLANTA, GA.

DRIFREEZ

Reg. U. S. Pat. Off.

Outperforms All Dehydrators by Test

Never Stores Water

Removes to 1½ oz. Physically

Neutralizes All Acidity

Prevents Corrosion and Plating

Perfectly Filtered

Units Never Require Baking By Vacuum

SAVES ENDLESS SERVICE CALLS

Tested for Safety by Engineering Laboratory

SEND FOR BROCHURE

BERNA CORP.

RICHMOND HILL 18, N. Y.

no trick to it!

it's easy to find the exact replacement control when you specify *Ranco* . . .

See the Ranco Replacement Reference at your wholesaler's today. It lists all refrigeration manufacturers, plus trade names and the Ranco Replacement Control code number. Available only through Ranco wholesalers.

✔ *check with Ranco first*

- specialists in refrigeration
- less stock to carry
- dependability
- more profit to you
- greater customer satisfaction

Ranco Inc.

COLUMBUS 1, OHIO

WORLD'S LARGEST MANUFACTURERS OF REFRIGERATION CONTROLS

Service Price Law--

(Concluded from Page 1, Column 5)

period. Such "seasons" must extend over a period of at least 14 days.

The regulation provides three methods of determining ceiling prices, which are the same as in the General Ceiling Price Regulation. The ceiling price is the highest price charged for that service during the base period.

If the service was not actually delivered during the base period, then the ceiling is the highest price it was offered for delivery during that period.

If a flat price was not offered, then the ceiling price is the rate or pricing method which you would have used if you had supplied the service. You must not charge more for each factor of the rate or pricing method than the highest price you charged for such factor in the base period.

Thus, if you charged on the basis of an hourly labor rate plus parts, you cannot charge more than the highest hourly rate you charged for labor during the base period or more than the highest price for each part.

If you did not sell or offer to sell a service during the base period, your ceiling price is that of your nearest competitor for the same service.

If you can't price your services by any of these methods, you must apply to the OPS in Washington for a ceiling price. Your application must contain a description of the service, anticipated direct labor and material costs, and the proposed ceiling price. It must also contain a full explanation of the reasons why you can't price this service under CPR 34.

You can't use your proposed ceiling until 20 days after you have filed your application, unless you hear from OPS in the meantime.

The regulation also provides procedures to follow for pricing new services and for such special cases as pricing on long term contracts, percentage commissions on commodity sales or purchases, individual negotiated prices, prices to new classes of purchasers, cost plus contracts, and use of flat rate manuals and catalogs.

The regulation permits you to discontinue to offer a service. But in order to do so you must apply to OPS and show that one of following conditions exist:

1. That specialized equipment or supplies needed to continue that service are not available.
2. That its continuance is in violation of a government order or regulation or is rendered impractical by a government order or violation.
3. That discontinuance of the service will enable you to maintain other services more necessary to the community.
4. That other suppliers in the community are able and willing to supply the requested service or a similar one at no more than your ceiling prices.

Unless you can offer sufficient evidence that one of these conditions exist, your request will be denied.

The regulation also provides that if you should buy out a competitor and continue to operate his business at his former location, you must continue to use his ceiling prices.

If you should move your own business out of your present trading area, after May 16, then you must apply to OPS to establish new ceiling prices for you that are applicable to the new trading area.

If you think your ceiling prices impose a hardship on you, you may apply for an adjustment. But, when applying for such adjustment, you must be very sure that the ceiling price is the cause of your hardship.

A request for a price increase will be denied if your hardship is attributable to such causes as a decline in sales volume because of reduced demand, general manpower shortage, shortage of essential supplies, or other causes apart from the ceiling price.

Stainless Steel--

(Concluded from Page 1, Column 2)

not have all the corrosion-resistant qualities of the nickel-bearing type, has been placed into effect by some manufacturers. With proper care, it is said, the chrome stainless steel will prove satisfactory.

Refrigeration equipment displayed included reach-in, salad, sandwich, and open-display counter service refrigerators; soda fountains of various types; low-temperature storage refrigerators; mixed drink dispensers; carbonators; automatic ice cube and shaved ice machines; display cases; and air conditioners.

In the electric cooking equipment lines were noted a wider variety of electric cooking and heating appliances which even though they do the complete job of food preparation on luncheon meals, barbecue servings, etc., are compact in size and readily installed.

Also noted were the displays of frozen products for use by restaurants. Particularly notable was the demonstration of frozen fruit pies, for delivery in the frozen form to the restaurant by refrigerated trucks, and baked at the restaurant to assure complete freshness.

The displays of refrigerated equipment were not marked by any particularly new revolutionary developments, but there were a number of models shown of commercial refrigerators, soda fountains, ice cube makers, and beverage dispensing items that were designed particularly for restaurant applications.

Ontario Dairies Drop Plan To Furnish Customers With Small Refrigerators

TORONTO, Ont., Can.—Conceived by a Minneapolis dairy and then dropped as too expensive, a plan to cut milk distribution costs by furnishing customers with small refrigerators which could hold a week's supply of milk was considered briefly by Ontario dairies and then rejected for the same reason.

The plan was introduced to the Ontario milk control board by the Chairman of Essex county milk distributors, A. R. Webber. He said the Minneapolis dairy, Ewald's, had been thinking of putting the scheme into practice.

However, Ewald's manager reported that the plan had been abandoned.

"Too expensive, too difficult with present shortages," he explained. "Still, it was a good idea and we'll get around to it some day, I hope.

"If Ontario adopted it, the benefits would lie in reduced distribution costs. Every regular customer would get a small milk refrigerator to hold several days' supply. We reckoned on paying maybe $50 a cabinet and sending them out to a couple of thousand regular customers."

Interest in the idea in Toronto died out when dairies began to consider the cost. Said one dairyman:

"We'd be lucky to get such cabinets at $100. For 1,000 customers that would mean an initial investment of $100,000."

2 Procurement Information Centers Move In Washington

WASHINGTON, D. C.—The Army Procurement Information Center and the Central Military Procurement Information Offices of the Munitions Board, Department of Defense, have moved to 334 Old Post Office building, 12th and Pennsylvania Ave., N. W., in downtown Washington, it was announced recently.

Neither of these procurement offices do any purchasing, it was pointed out. Contracts are awarded through field procurement offices, each of which has complete information facilities.

Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request **to the purchasing office under which the purchase is listed** in this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid set is made.

DEPARTMENT OF DEFENSE

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. Ordnance District Offices do not have information on any other purchases.

Description	Quantity	Invitation No.	Opening Date
Chicago Quartermaster Depot, QM Purchasing Division, Chicago, Ill.			
Cooler, drinking water, electric bubbler style, air-cooled condenser for land use. Size 10	2000	1600	4 June 51
Condensing unit refrigerator Sectional General Storage Box only			
8 x 8 ft. (320 cu. ft.)			
Domestic Pack	125	1599	28 May 51
Overseas Pack	125	1599	28 May 51
10 x 24 ft. (1,310 cu. ft.)			
Domestic Pack	10	1599	28 May 51
Condensing unit refrigerator Self-contained air cooled Electric 1 hp.			
Domestic Pack	125	1599	28 May 51
Overseas Pack	125	1599	28 May 51
Electric 3 hp.			
Domestic Pack	10	1599	28 May 51
Cooler Unit Refrigerator Self-contained Forced Draft Electric 7150 B.t.u. Ph.			
Domestic Pack	125	1599	28 May 51
Overseas Pack	125	1599	28 May 51
4650 B.t.u. Ph.			
Domestic Pack	10	1599	28 May 51
5280 B.t.u. Ph.			
Domestic Pack	10	1599	28 May 51
7500 B.t.u. Ph.			
Domestic Pack	10	1599	28 May 51
5800 B.t.u. Ph.			
Overseas Pack	20	1599	28 May 51
Refrigerator Mechanically Cooled Electric, Right-Hand Door, 12 Cu. Ft.			
Domestic Pack	50	1599	28 May 51
Supply Officer, Philadelphia Naval Shipyard, Philadelphia 12, Pa. Attn.: Purchase Section			
Valve, relief, in accord with Sketch	178	Ships-2858	22 May 51
Gauge pressure in accord with specs.	220	Ships 2919	24 May 51
Supply Officer, Naval Proving Ground, Dahlgren, Va.			
Air conditioners	3	1-50	4 June 51
Commandant of the Marine Corps, Washington, D. C. Attn.: Supply Dept., Procurement Section			
Range, gas, domestic, table top, 4 burner	200	1819	5 June 51
Spare parts for York refrigerators, model V-30 machine ice making Flakice, models der-10 and der-11A	65 items	1818	29 May 51
Commanding Officer, Chemical Corps Procurement Agency, Army Chemical Center, Maryland			
Potentiometer, Strip Chart, 16 PT Temp. Recorder	2	51-708-D	6-4-51
Conditioner, Air, Single Package Type, 5-Ton Capacity, Water Cooled	1	51-711-D	6-4-51
District Public Works Office, Headquarters, Fifth Naval District, U. S. Naval Base, Norfolk 11, Va.			
Refrigeration for general mess galley at Chincoteague, Va., deposit of ten dollars required for plans and specs.		28243	22 May 51
Additional exhaust ventilating systems, U. S. Naval Supply Center, Bldg Z-105, Norfolk, Va. Deposit of ten dollars required for plans and specs.		26934	22 May 51
Navy Purchasing Office, 111 East 16th St., New York, N. Y.			
Refrigerator	1	8877	8 June 51
Ranges, gas	24	8882	8 June 51

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Chief, Purchase Division, Federal Supply Service, General Services Administration, U. S. Court House, Seattle 4, Wash.			
Cabinet, ice cream, 6.2-cu. ft. cap. 20-gal. bulk	1	C-E-683-HS-1	5-25-51
Office of the Regional Director, General Services Administration, 1800 Fidelity Building, Kansas City 6, Mo.			
Alteration of ventilating system, Kansas City, Mo., Post Office		C-R-236	6-4-51
Chief, Purchase Division, Federal Supply Service, General Services Administration, Room 528, U. S. Court House, 219 South Clark St., Chicago 4, Ill.			
Electric water coolers	346	CHD-2005	5-28-51
Refrigerators, various kinds, electrically operated	76	CHD-1013	5-29-51
Refrigerators, household type, gas operated	2	CHD-1013	5-29-51

CONTRACTS AWARDED AS OF MAY 9, 1951

Description — Contractor and Address

Chicago Quartermaster Depot, U. S. Army, 1819 West Pershing Rd., Chicago 9, Ill.

Refrigerated warehouse, prefab.—Hussmann Refrigerator Co., St. Louis, Mo.

Ice cream plant, portable; spare parts and tools—Tekni-Craft, Rockton, Ill.

Ice cream plants, portable, spare parts and tools—Thompson Machine & Supply Co., New York, N. Y.

Navy Department, Aviation Supply Office, Oxford Ave. and Martin's Mill Rd., Philadelphia 11, Pa.

Copper tubing, 1300 p.s.i. air.—Reading Tube Corp., 36-12 47th Ave., Long Island City, N. Y.

Tubing, seamless copper, cold drawn—Lewin-Mathes Co., 1111 Chouteau Ave., St. Louis, Mo.

U. S. Navy Purchasing Office, 180 New Montgomery St., San Francisco 5, Calif.

Blowers, with motor and starting equipment; blowers, without motor and starting equipment—American Air Filter Co., Inc., 225 Bush St., San Francisco 4, Calif.

Coolers and kits—Ross Heater & Mfg. Co., Inc., Division of American Radiator & Standard Sanitary Corp., 1407-11 West Ave., Buffalo 13, N. Y.

Refrigeration Units WANTED

Desire to purchase 1/8 to 1-HP Sealed or Open type; standard brands; Complete condensing units; Also motors, controls, valves, etc. Give full details.

HARWOODE EXPORT CO.
31 E. 4 Street, New York 3, N. Y.

NATIONAL Champion

The **CHAMPION**
BLACK BEAUTY
.... Still the Finest ... and Available for Immediate Delivery

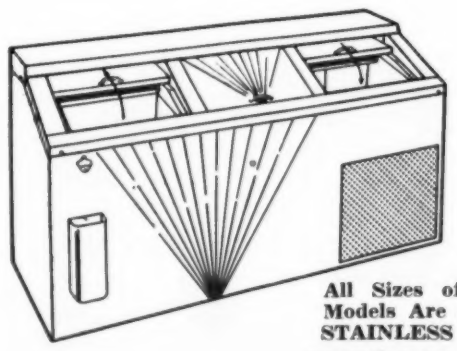
Companion Model to National's Popular Stainless Steel Champion Dry Beverage Cooler

- All Stainless Steel Top
- Easy Slide-up S.S. Doors With Only a Finger Touch
- Automatic Inner Lighting
- Removable Partitions and Floor Racks
- Full-Length Utility Shelf
- Dry Air Cooling Always Over Contents

CHAMPION Black Beauty

Remote Model CHB-74 (23 Cases)

It's a CHAMPION in any league . . . and you'll like its attractive Black Morocco Finish. Even in these days of shortages, NATIONAL still gives you the best. The "Black Beauty" is also available in these sizes: CHB-52 (16 Cases) 2 doors; CHB-98 (31 Cases) 4 doors; and CHB-120 (39 Cases) 5 doors.



SELF CONTAINED MODEL CHB-74-SC (19 Cases)

This fine cooler has the same outstanding features as Model CHB-74. It comes with the compressor section built-in with storage space above or with the compressor unit ready to plug-in. It has a SERVEL compressor with a five (5) year warranty. Other Sizes available: CHB-52-SC (12 Cases); CHB-98-SC (27 Cases); and CHB-120-SC (35 Cases).

All Sizes of the Remote and Self Contained Models Are Also Available in the Original ALL STAINLESS STEEL EXTERIOR (Except Back).

WRITE FOR OUR CATALOG AND PRICE LIST

Manufacturers of Stainless Steel and Metal Restaurant Equipment

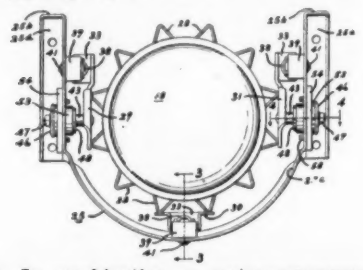
NATIONAL COOLER CORPORATION

2404 PROSPECT AVENUE • CLEVELAND 15, OHIO

PATENTS

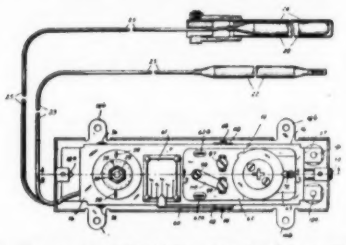
Week of January 2 (Continued)

2,536,811. REFRIGERATING APPARATUS SUPPORT. Elmer L. Horlacher, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio.



1. In combination, a motor-compressor unit of a refrigerating system, a spring suspension for resiliently carrying said unit from a support therefor, clamping devices located on opposite sides of said unit and disposed between said support and said unit, each of said clamping devices including a rubber-like member so constructed and arranged to at all times permit free movement of said unit on its carrying springs a predetermined distance in any direction relative to said support and for snubbingly limiting movement thereof beyond said predetermined distance, the rubber-like member of said devices having a flexible portion continuously engaging said unit and cushioning the free movements thereof within said predetermined distance, and means for mounting said devices upon said support.

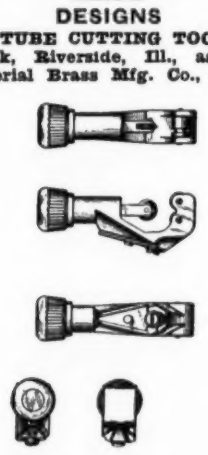
2,536,831. TEMPERATURE CONTROLLER. William J. Allan, Richmond Heights, Mo., assignor to Missouri Automatic Control Corp., St. Louis, Mo.



1. In a temperature responsive control device of the class described a pivoted lever, spring returned switching mechanism having an operating member adjacent said lever at a first point, a temperature responsive actuator responsive to the temperature of one body and having means for engaging said lever at a second point spaced from said first point and arranged to move said lever toward said operating member so as to operate said switch mechanism in one direction in response to an increase in temperature, a floating thermally expansible element responsive to the temperature of a second body and biased between said operating member and said lever for jointly causing the operation of said switching mechanism in the same direction in response to an increase in temperature and means for shifting said lever pivot relative to said first and second lever points.

DESIGNS

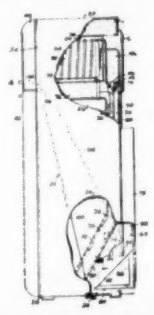
161,438. TUBE CUTTING TOOL. George E. Franck, Riverside, Ill., assignor to The Imperial Brass Mfg. Co., Chicago.



Week of January 9

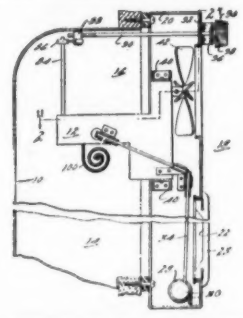
2,537,314. REFRIGERATOR HAVING A HEAT TRANSFER DEVICE ABOUT DOOR OPENING. Henry Mortensen, Detroit, Mich., assignor to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland. Application Nov. 2, 1948, Serial No. 57,944. 7 Claims. (Cl. 62—89.)

1. In a refrigerating apparatus, an outer metal cabinet casing having an inclined portion thereof forming part of a machinery compartment, a cooling element within said casing for cooling a storage compartment therein separated from said machinery compartment, an access opening in said casing to said storage



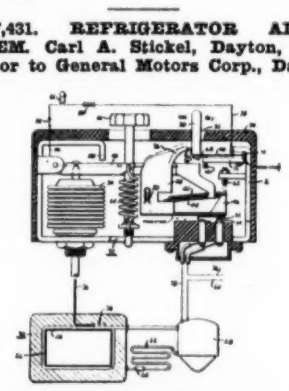
compartment, a door closing said opening, and a heat transference medium circulatory system having a serpentine cooling portion extending along and in contact with said inclined portion externally of said machinery compartment and having a heating portion in heat transfer relation with said casing adjacent said access opening.

2,537,367. DRIVE FOR AIR CONTROLLING GRILLES. Alwin B. Newton, Dayton, Ohio, assignor to Chrysler Corp., Highland Park, Mich., a corporation of Delaware. Application July 2, 1948, Serial No. 36,731. 7 Claims. (Cl. 236—1.)



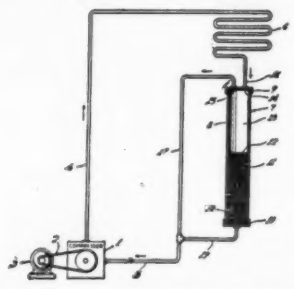
4. An apparatus for controlling the discharge of air from an air supply passage to a room comprising a damper means having a plurality of positions adapted to restrict in varying degree the discharge of air from said supply passage and control means deriving energy from the air discharged from said passage to locate said damper means in different positions, said control means including an air driven turbine associated with said passage, a ratchet wheel operably connected to said damper means and adapted to move said damper means in response to movement of said wheel, a drive transmitting means interposed between said turbine and said wheel, said drive transmitting means including a lever mounted for reciprocation, means to reciprocate said lever in response to rotation of said turbine, a first pawl for communicating motion from said lever to said wheel, a pair of pawls mounted for selective engagement with said wheel and each adapted to prevent motion of said wheel in one direction and temperature responsive means operable to selectively engage one of said pair of pawls with said wheel to thereby determine the direction of ratchet drive imparted to said wheel by reciprocation of said lever.

2,537,431. REFRIGERATOR ALARM SYSTEM. Carl A. Stickel, Dayton, Ohio, assignor to General Motors Corp., Dayton.



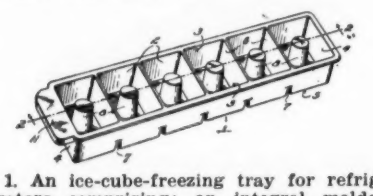
1. In combination, a first means to be kept within desired temperature limits, a temperature changing means for maintaining the first means within said temperature limits, a cyclically operable control means for said temperature changing means having a predetermined differential providing operating and idle periods corresponding to said temperature limits, a signaling device, means for rendering effective said signaling device when one of said temperature limits is exceeded, and releasable means controlled by said cyclically operable means for preventing the signaling device from being rendered effective only until the termination of one of said periods of operation of the temperature changing means.

2,537,720. REFRIGERANT GAS DRYING APPARATUS. Harry C. Wagner, North Apollo, Pa.



1. A drier for insertion in a gas refrigerant conduit having high and low pressure ends comprising a container having an upper portion with a first opening therein for connection to the high pressure end of the conduit and a second opening for connection to the low pressure end of the conduit, said openings being out of direct alignment so that the gas will not travel in a direct line through said upper portion as it moves from said first to said second opening, a lower portion with a third opening therein for connection to said low pressure end through which lubricant may return by gravity from said container to said conduit, and moisture absorbing material in said lower portion for preventing the flow of said third opening of moisture separated out of gas flowing from said first to said second opening.

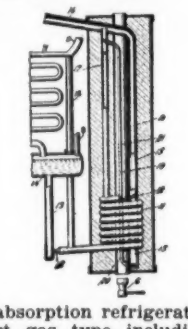
2,537,915. CUBE FORMING TRAY FOR REFRIGERATORS. Nathan W. Roop, Columbus, Ohio, assignor to Columbus Plastic Products, Inc.



1. An ice-cube-freezing tray for refrigerators comprising: an integral molded body of plastic composition having a plurality of cube-forming pockets, said pockets being separated by longitudinally spaced transversely extending divisional walls, said walls being substantially wedge-shaped in their transverse configuration and having open bottomed slots formed in base portions of each thereof, each of said pockets being provided centrally with an upstanding hollow post-like column.

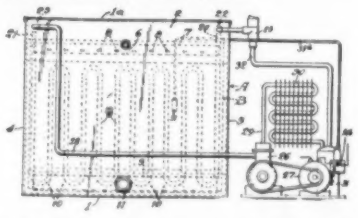
Week of January 16

2,538,010. ABSORPTION REFRIGERATION. Wilhelm Georg Kogel, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux Stockholm, Sweden.



1. In an absorption refrigeration system of the inert gas type including an absorber, a liquid heat exchanger having a plurality of passages, a vapor expulsion unit comprising an upright heating tube, first and second upright conduits alongside of said heating tube and at least one of which is in heat conductive relation therewith, the aforesaid parts being so connected that solution flows in an unbroken stream from the outlet of said absorber through a passage of said heat exchanger and first conduit into the lower end of said lift pipe and form a liquid column in said first conduit having a liquid surface level which is above the highest point of said heat exchanger, and solution entering from said lift pipe forms a liquid column in said second conduit from which solution flows through another passage of said heat exchanger to the inlet of said absorber, said heat exchanger being so arranged and connected in the system that vapor in any part of the passages thereof is always vented into said conduits, and said lift pipe having a part thermally connected to said heating tube in a zone extending between the liquid surface level in said first conduit and the lowest part of said heat exchanger to cause expulsion of vapor from solution in said pipe and raise liquid therein by vapor lift action under the influence of a reaction head formed by the liquid column in said first conduit.

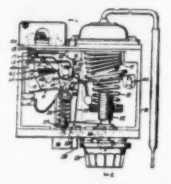
2,538,015. LIQUID COOLER. Herman W. Kleist, Chicago, Ill., assignor to Dole Refrigerating Co., Chicago, Ill.



1. In means for cooling liquids, including water, a tank adapted to receive the liquid to be cooled, said tank having side walls, end walls and a bottom wall, said tank having an inlet and an outlet, a plurality of refrigerating plates in said tank extending between the side walls, said plates being staggered to define, with the tank walls, a tortuous path from the liquid inlet to the liquid outlet, some of the plates being in substantially liquid-tight relation with the bottom wall and side walls, while adjacent plates have lower edge portions defining liquid passages above the bottom wall, said first mention plates having upper edge portions at a level, in relation to the normal level of liquid in the tank, to permit the liquid to flow thereover, said plates having plane surfaced, generally parallel, outside walls, and a refrigerant receiving coil within and between said walls, means for cycling a volatile refrigerant through said coils and for thereby reducing the temperature of said plates to below the freezing temperature of the liquid, whereby a layer of ice forms on said plates, and means for terminating the cycling of said volatile refrigerant upon the formation of a predetermined layer of ice coating upon the exterior of said plates, whereby said ice coating is adapted to constitute a cold storage means for maintaining the liquid cool intermediate the cycling periods of the volatile refrigerant.

2,538,639. REFRIGERATOR DEFROSTING DEVICE. Edgar H. Ayers, Schenectady, N. Y., assignor to General Electric.

1. In a refrigerator control device, a pivoted overcenter switch lever, a pivoted temperature responsive operating lever coupled to actuate said switch lever overcenter and movable recurrently between spaced-apart switch opening and switch closing position at which such actuation takes place, said switch opening and switch closing positions defining lower and upper temperature limits respectively, a freely movable stop member associated



with said switch lever to determine said switch closing position of said operating lever, said stop member normally being position to determine a first switch closing position defining a normal upper temperature limit, and means progressively movable by recurrent movement of said operating lever for recurrently positioning said stop member to determine a second switch closing position beyond said first switch closing position, thereby to define an abnormally high upper temperature limit.

$10,000.00 TO START

Chief Engineer required for Mid-West company specializing in heat transfer equipment. Age 35-45. Must be thoroughly experienced with ability and desire to develop new products. This is an outstanding opportunity to become associated at top level with a firmly established financially responsible company. Your reply will be treated in strict confidence.

Box 3730

Air Conditioning & Refrigeration News

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POSITIONS WANTED

AVAILABLE NOW—Refrigeration service engineer with 15 years' experience all types commercial, industrial and air conditioning. Seven years own business specializing in sales, installation, service and contracting in—commercial and air conditioning. Will consider position of field service representative in the above lines. Willing to travel in any part of the country. Looking for permanent home with manufacturer or distributor. Opportunity for advancement. BOX 3731, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

REPRESENTATIVE TO sell nationally known commercial refrigeration line to dealers and chains in Ohio and Eastern Michigan on commission basis. Several dealers already established in territory. Write BOX 3723, Air Conditioning & Refrigeration News.

REPRESENTATIVE TO sell nationally known commercial refrigeration line to dealers and chains in New York state and Connecticut, on commission and bonus basis. Must have car. Dealers already established in territory. BOX 3732, Air Conditioning & Refrigeration News.

COMMERCIAL REFRIGERATION and air conditioning serviceman for distributor of nationally advertised refrigeration and air conditioning products. Must be experienced. State qualifications in first letter. This is a year-round position. Compensation will be at union rates. This distributor is located in the northern Ohio area. Convenient interview will be arranged. BOX 3733, Air Conditioning & Refrigeration News.

FIELD SERVICE representative with growing refrigeration, air conditioning business of well known manufacturer. Graduate engineer, about 35 to 45, with approximately five years' experience in areas of application, installation, service and serviceman training. Should be willing to travel and/or relocate in Chicago, Washington, D. C. or New Jersey. State complete personal history, experience and references. BOX 3734, Air Conditioning & Refrigeration News.

LEADING MANUFACTURER of refrigeration units and compressors, located in middle west, has opening for a graduate engineer with several years actual experience in the testing laboratory. Must be experienced in complete testing of both belt driven and hermetic type condensing units and compressors. Must have a thorough background and experience with electrical problems of hermetic units. This position is permanent and an excellent opportunity for right man. No one need apply unless they can fill all of these qualifications. Give complete history, references and expected salary in first reply. All replies will be held strictly confidential. BOX 3735, Air Conditioning & Refrigeration News.

DESIGN-DEVELOPMENT engineer. Middle West manufacturer of control valves and accessory equipment. Experience in refrigeration engineering or design-development of electrical-mechanical control devices required. Fascinating field offers opportunity for man with ambition and initiative. Please submit data re. age, education, experience, earnings, etc. in first letter. All replies confidential. BOX 3736, Air Conditioning & Refrigeration News.

AIR CONDITIONING closer wanted: We are a 23-year-old leader in the field, distributing Chrysler Airtemp in Brooklyn, N. Y. with equipment on hand for immediate delivery, fully staffed and equipped. Our program supplies you with qualified leads—you do no canvassing. To a capable closer with "packaged unit" experience we offer a permanent future with an excellent starting salary plus that should mean a 5 figure income. Write full details to BOX 3737, Air Conditioning & Refrigeration News.

SALES ENGINEER. Leading controls manufacturer has opening in southwest for energetic sales engineer experienced in refrigeration. Top Pay. Salary, commission, and expenses. Please write BOX 3742, Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

REFRIGERATOR DOORS. 3'6" by 6'6" double batten auto close doors complete with removable track heads for a 7'2" track. 1½" corkboard insulation. 16 gauge metal clad. Brand new. $95.00 each. Freight prepaid in U.S. Door height will be altered for anything up to an 11 ft. 2 in. track for $15.00 additional. BIMEL CO., Cincinnati, Ohio.

3-TON—CT3 cooling tower. Unidrive units. 120 foot external pumping head. Outdoor application. 5 ton—CT5 cooling tower. Unidrive units. 80 foot external pumping head. Outdoor application. Close-out—Write for prices. CIRCLE CONDITIONING CORP., 2809 Webster Avenue, Bronx 58, New York.

COMPRESSOR BODIES, brand new; model #19 good up to 1-HP, @ $38.; includes flywheel and service valve. The last of a large quantity. Also standard brand temperature control, $3.85. Pressure control, $5.00. Write for full particulars. First come, first served. MANN REFRIGERATION SUPPLY CO., 15 Astor Place, NYC, GRamercy 3-8000.

¼-HP open and sealed type prominent brands condensing units complete; brand new; limited quantity; act now; $52. each FOB New York; write for specifications; other sizes also available; MANN REFRIGERATION SUPPLY CO., 15 Astor Place, New York 3, N. Y.

FOR SALE—while they last—standard makes—new hermetic units—static & fan-cooled cond. ⅛, ⅙, ⅕, ¼, ⅓. Open Units—⅛—⅓—½. Relays—⅛—⅙—⅓—½—also overload protectors. #673 Methyl T.X.V. Capacitors in jet-black steel case 190-240 mfd. Small hermetic driers. ¼" fl.—7½" overall Driers. Household Cold Control—w/Knob & plate. Also other parts and supplies. Send for our latest list and prices. Sold on money back guarantee. WALTER W. STARR, 2833 Lincoln Ave., Chicago, Ill.

SURPLUS INVENTORY, 200 sets prominent brand hard rubber rails and jambs to fit 3 door opening; door size 16½ x 25½ each. For 8' display case. $12.50 per set. Doors not included. 200 triple glass panes, ¼" thick glass. 24 x 86 for 8' display cases. $25.00 each. All above items brand new and in original crates never opened. All prices F.O.B. Philadelphia. BOX 3738, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

FOR SALE: Controlling interest in corporation handling heating, air conditioning, refrigeration parts and equipment at wholesale. Some lines exclusive distribution for state. City 150,000. Dollar volume 1950 $182,000.00, total assets $82,000.00. Reg'd capital $20,000.00. President called into government service. Box 6097, Albuquerque, New Mexico.

FOR SALE: Old established commercial refrigeration and restaurant supply firm in major So. Calif. city. Distributor nat'l. advertised lines. Will sell all or will consider an active partner. Reply BOX 3739, Air Conditioning & Refrigeration News.

FOR SALE: Refrigeration sales & service business located in S.W. Wisconsin. BOX 3740, Air Conditioning & Refrigeration News.

WHOLESALE DISTRIBUTOR, one of the Big Four major appliance lines, has a franchise opening for two experienced and aggressive dealerships in Florida. Opportunity available both in rapidly growing west coast tourist area—also east coast business and industrial center. A real sales and profit opportunity for a specialty appliance merchandiser. This will bear your strictest investigation. BOX 3741, Air Conditioning & Refrigeration News.

COMMERCIAL REFRIGERATION and air conditioning firm located in Central Calif. near coast, metropolitan area, going business established since 1938, Owner retiring, will sell for actual inventory. Books and records are open for your inspection and prove the business. Bank credits established for the right man. Replies confidential. Write your qualifications to BOX 3743, Air Conditioning & Refrigeration News.

MISCELLANEOUS

NORGE SEALED units remanufactured and exchanged. Immediate delivery from stock, 1 year warranty. Write for price and shipping instructions. Genuine Norge terminals for Norge sealed units. Complete set of three, $1.45 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Michigan.

NORGE SEALED units—remanufactured and exchanged. All SO_2 units converted to "Freon-12." Factory methods are used, and all work is supervised by Norge factory trained men. For additional information and prices write NORD HERMETIC COMPANY, 1701 San Leandro Blvd., San Leandro, California.

Low Temperature Systems

Factors In the Design, Selection and Servicing of Such Equipment

6. How Test Chambers Are Applied to Industrial Processes

This series of articles by Mr. Lopiccolo on low-temperature refrigeration has covered the following ground:

Single, two, and three-stage refrigeration applied to low-temperature applications, with discussions of the principles involved in each type, and advantages and disadvantages of each type.

Service problems that are somewhat peculiar to these various types of systems.

Applications in which low-temperature refrigeration has a definite function. This covers many fields related to the defense effort.

This instalment, sixth and last in this series, describes how test chambers aid numerous types of manufacturers solve processing problems and ultimately save time and high production costs.

Material appearing in this series of articles has formed the basis for papers which Mr. Lopiccolo has presented before a number of American Society of Refrigerating Engineers section meetings.

By Thomas Lopiccolo, Vice President, Bowser Technical Refrigeration, Division of Bowser, Inc.

Humidity Cabinet

Under this classification comes the relative humidity cabinet which simulates low and high relative humidity within a fairly narrow range of temperature, usually from just slightly above freezing to just slightly under the boiling point of water. These cabinets are principally used to check the effects of high humidities on electrical apparatus and also to determine the results of accelerated corrosion.

In order that these pieces of equipment, which are to be ultimately used to check corrosion of other apparatus, last long enough to be amortized as part of capital equipment in a plant, it is imperative that these cabinets be built with considerable attention given to the materials of contruction. The use of stainless steel and other non-corrosive materials throughout the manufacture of the equipment points toward a satisfactory product.

Also completely automatic controls eliminating wherever possible, manual operations permits long and continued use 24 hours a day for many days or even months without requiring the attention of an operator. These types of tests are commonly called for in order to determine the rate of corrosion and when and if corrosion has started.

Some of the typical applications for a humidity cabinet are as follows: For checking the electrical leakage effects in radio and television apparatus. When such equipment as radios and television sets are being installed in private homes a considerable amount of care has to be given to checking the electrical leakage which exists from high voltage equipment when subjected to moist air conditions.

Another application is the accelerated weathering test particularly applicable to fabrics, clothing, parachute cords, plastic, paper goods, packaging material, adhesive, glues, etc.

Another interesting application was in the process of manufacturing and in the packaging development for tobaccos, food products, and bakery goods. In particular, the frozen food industry required a moistureproof wrapping material and these materials which are apparently used today have been developed in the laboratories of the various paper manufacturers with the use of humidity producing equipment.

In other words, it was possible by the subjecting of the sample of the packaging material to high humidity conditions to calculate by measurement the amount of moisture which could permeate through paper itself from the high humidity surroundings to the relatively dry interior at the start of the test.

The operation of munition and munition powder as well as the functioning of arms of all kinds from small guns to large heavy equipment requires humidity testings whether it be small cabinets or in large humidity rooms.

Certainly the corrosion testing procedure as outlined by A.S.T.M. (American Society of Testing Material) requires various types and shapes humidity cabinets. Corrosion being an important factor in modern day practices, humidity cabinets are coming more and more into use in order to check the corrosion resistant qualities of various materials developed.

The use of controlled temperature and humidity atmospheres are important in the biological and food technology industries. Such functions as incubation and development of cultures, seed germination and storage, etc. are only a few of the various types of applications for humidity cabinets. Certainly the environmental simulation of air conditions in the laboratory is an important cost of this type of work.

As an example, under consideration by the Department of Agriculture was the importation of a particular insect from Hawaii to combat another insect causing considerable damage to crops in the United States.

But before they could transport this insect from Hawaii, it was necessary to determine whether it could exist in the various climates encountered in western United States. So it became necessary to construct the humidity equipment for installation in Hawaii in which the actual air conditions as encountered in California and other western states could be duplicated and completely controlled and cycled automatically so that the insect could be subjected to these tests to determine whether it could survive or not.

Altitude Cabinets

In this particular type of equipment, there has been very small application of equipment designed strictly to simulate altitude conditions; there are several applications where equipment was not affected by low temperature and was only affected by altitude.

One of the several was the calibration of altimeters and particularly as used in commercial aircraft. Temperature compensation was possible but was not a desirable part of the test since it was only of casual interest to know whether the equipment was in or out of calibration. Another interesting application for altitude cabinets was in the vacuum packaging of certain food products and paint in cans. In this type of apparatus was developed the technique for vacuum packing as we know it today.

One of the interesting applications was in the packaging of paint goods as mentioned above. It was necessary to transport ordinary commercial paint cans in aircraft for rapid delivery to remote areas. However, since the original containers were packed with atmospheric air surrounding them, there was sufficient air in the container to lift the lid when subjected to altitude conditions in flight.

Thus, the obvious solution to the problem was to remove the air during the initial packaging and as a result not destroy the fill of the cans during flight. Thus we had a form of vacuum packaging.

Low-Temperature Cabinets

The low-temperature cabinets as manufactured today consist essentially of a top opening compartment refrigerated by a mechanical refrigeration system. These units are strictly designed for low-temperature use and usually for continuous operations at low-temperatures with hardly any shut-down period. They are kept in operation continuously because of the economics involved and because of the production capacity desired.

The applications of low-temperature cabinets to the industries have been best covered by the other reports by this organization. The use of low-temperature cabinets for expansion fitting, harding of tools, stabilization of metals, decelerating agings of aluminum and steel, the retarding of aged hardening of aluminum rivets and sheets, etc. are some of the several applications of low temperature.

Another interesting application was in the optical lens itself. In order to hold the lens conveniently, a block of steel is employed and the optical glass is cemented to the steel block by the use of a pitch material. This pitch material is soft when warm but becomes brittle at low temperatures. In order to facilitate the removal of the lens from the pitch block, the use of relatively low temperatures to harden the pitch and permit the glass to be removed readily has been employed.

With the advent of the aircraft flight at extremely high altitudes and at low temperatures, it became necessary for the oil and petroleum industries to develop lubricant fuel which would operate in extremely low temperatures. The use of low-temperature cabinets by the oil industry has been greatly accelerated and considerable strides have been made in those fields as a result of the ability to duplicate low-temperature conditions right in the laboratory.

Another application has been in the tire and rubber manufacturing industry. Particularly to the manufacturer of small molded parts which are usually molded in such a way that when the parts are removed from the mold a slight thin sheet of rubber is usually found in the flashing.

The removal of this flash material from the small compound elements presents a problem of handling, and it was found by subjecting these rubber particles to a low-temperature treatment the rubber became brittle and hard, and thus, by the tumbling technique the flashing on the rubber parts could be removed without damage to the part itself.

This rubber deflashing technique is apparently in use in the majority of the rubber and tire industry, with the use of low temperature.

Industrial Processes

Under the industrial processes there are many listed, a few are as follows:

(1) Barrel drying, a new technique applying the use of heated air blown through a tunnel, while the barrels being heated by the air are conveyed through the tunnels automatically. It was developed, in order to accelerate the drying of steam cleaned steel barrels used in the food industries.

(2) Similarly the use of high-temperature air blown over a tray of wet brake lining to be dried was used in a process developed for drying brake linings. The manufacturer of brake linings requires a very rapid drying of the material. The use of automatic conveying equipment together with controlled temperatures of air and velocity of air produced the desired results.

(3) In the manufacture of DDT in propellent cans, the use of low temperature to reduce the vapor pressure of the mixture and facilitate easy sealing of the can has resulted in a complete revolutionizing of the industry.

(4) In the machine tool industry the use of circulating coolant or cutting oils is employed to remove the heat of machining from the precision part.

(5) The use of low temperature and high vacuum in the vacuum dehydration of heat sensitive materials represents an extremely large industry classified under biologicals. In the case where certain materials must be dried without the use of heat, a combination of low temperature and vacuum permitting removal of the moisture by sublimation of the ice has been satisfactorily proven in blood plasma work as well as in the manufacture of certain serums and biologicals in the medical industry.

(6) The combination of low and high temperatures has been incorporated in the manufacture of a test unit which is used to control and regulate the cloud and pour points of oil during the process of manufacture. Also research laboratories have employed this type of unit for development of new low-temperature oils for use both in refrigeration and aircraft equipment.

(7) The development of a sand and dust chamber for simulating actual dust environment has been developed to comply with government test requirements.

(8) An explosion test facility similar in purpose to the preceding dust chamber has also been developed, and is particularly suitable for the electronic industry for the testing of the explosion-proof characteristics of its components.

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AIR CONDITIONING & REFRIGERATION NEWS, 450 W. FORT ST., DETROIT 26, MICH.

Big Unit Makers--

(Concluded from Page 1, Column 4)

takes effect on these items.

According to the regulation, it "provides a procedure to be used by producers of such items for the application of DO ratings to obtain materials and parts necessary for the manufacturer by them during the third quarter of such items in quantities adequate to meet the current and anticipated demand."

For this purpose they have been automatically assigned the right to use a DO-75 rating.

Also included in the list of products affected by this order are a variety of machine tools and related equipment.

A similar order, M-60, provides a DO-70 rating for manufacturers of fractional horsepower motors and valves and fittings for piping systems, except plumbing.

Industry Aluminum Users Cut to 50% by NPA Order

WASHINGTON, D. C.—Manufacturers of air conditioning, warm air heating, and ventilating ducts will be permitted to use half as much aluminum in these items during May and June as they did in an average month for the first half of 1950, the National Production Authority announced recently.

This cut in the permitted use of aluminum from the present 65% to 50% came in an amendment to NPA's aluminum order M-7. It affects some 200 consumer items in which the use of aluminum was to have stopped altogether on May 1.

The amendment, NPA said, will permit additional time for manufacturers of less essential civilian goods to convert to defense production.

NPA cautioned, however, that the amendment will not assure aluminum supplies to consumers.

The order noted that the prescribed percentage of aluminum in the manufacture of ducts was in addition to any used to fill military orders.

FRB Charges Detroit Store In Reg. W Violation

DETROIT—The Atlas Furniture Co. here recently became the first appliance and furniture store in this area to be permanently enjoined from further violations of Regulation W.

Federal Reserve Board officials who initiated the suit against Atlas charged the company with making instalment sales without the required down payment, selling sets of furniture on credit piece by piece to circumvent the regulation, and failure to keep records of sales.

Westinghouse Gets Army Water Cooler Contract

EAST SPRINGFIELD, Mass.—The Army has ordered 837 electric water coolers from Westinghouse Electric Corp., the company announces.

The contract, awarded by the Army's Quartermaster Corps, calls for the delivery of 749 coolers with a 13-gal. capacity, and 88 with a 22-gal. capacity, to different military supply bases.

All the coolers will have stainless steel tops and will be of the hermetically sealed type, it was pointed out by H. F. Hildreth, manager of the company's refrigeration specialties department.

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Farm and home freezers, commercial display cabinets, dairy cases, bottle coolers, walk-in coolers

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Profit by selling the American "Aristocrat" line

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AMERICAN REFRIGERATION CORPORATION

1025 E. Excelsior Avenue
Hopkins, Minnesota

ASRE Meeting--

(Concluded from Page 1, Column 5)

Tuesday morning technical session, George F. Taubeneck, editor and publisher of AIR CONDITIONING & REFRIGERATION NEWS, will discuss the materials situation in a talk entitled "What and How Much Can Be Produced in the Next 12 Months."

Technical sessions will cover a variety of subjects such as multi-cylinder ammonia compressors, low temperature refrigeration, design problems in small air conditioning systems, control of humidity with such systems, refrigerated greenhouses, insulation, and the like. In all, there will be eight technical papers besides the domestic conference on hermetic motors.

Arrangements have been made for inspection trips to Nash-Kelvinator Corp., Ford Motor Co., Greenfield Village, and the J. L. Hudson department store air conditioning system.

Something different in the way of entertainment has been devised by the Detroit section, host for this meeting, for the traditional Monday night party. Guests will be taken on a mystery trip with destination unkown to help celebrate the city of Detroit's 250th birthday. Dinner, floor show, and dancing are promised.

The semi-annual dinner-dance preceded by a cocktail party is scheduled for Tuesday evening, May 29. Early arrivals and those members present for Sunday's committee meetings are invited also to the President's Reception to be held at 8:30 p.m. Sunday.

Besides the trip to Greenfield Village, special events for the ladies include a luncheon and floral show on Tuesday.

Day-by-day program for the meeting is as follows:

SUNDAY, MAY 27

11 a.m.—Committee meetings.

8:30 p.m.—President's reception.

MONDAY, MAY 28

9 a.m.—Registration.

9:30 a.m.—First technical session, President Paul B. Christensen presiding.

"Multi-cylinder Ammonia Compressors," Leon Buehler, chief refrigerating engineer, Creamery Package Mfg. Co.

"Low Temperature Refrigeration," E. R. Michel, assistant manager, Air Conditioning and Refrigeration Division, Worthington Pump & Machinery Corp.

"Effect of Storage Temperatures on Frozen Citrus Concentrates," C. W. DuBois and T. J. Kew, Minute Maid Corp.

10 a.m.—Domestic Refrigerator Engineering Conference, Milton Kalischer, presiding.

"Application of Motors to Hermetically Sealed Condensing Units," F. H. Fleischer and J. B. Brightman, General Electric Co., followed by general discussion.

12:30 p.m. — Welcome luncheon. George Romney, vice president, Nash-Kelvinator Corp., speaking on "The Job Ahead."

2 p.m.—Committee meetings.

2 p.m.—Inspection and sight-seeing trips: Nash-Kelvinator plant, Greenfield Village.

7 p.m.—Surprise Birthday Party or Mystery Trip.

TUESDAY, MAY 29

9 a.m.—Registration.

9:30 a.m.—Second technical session, Vice President Edward Simons presiding.

"Designing Small Air Conditioning systems," D. D. Wile, chief engineer, Refrigeration Engineering, Inc.

"Control of Humidity in Small Air Conditioning Systems," Wm. T. Smith, senior refrigeration engineer, U. S. Air Force.

11 a.m.—Address, "What and How Much Can Be Produced in the Next 12 Months," George F. Taubeneck, editor and publisher, AIR CONDITIONING & REFRIGERATION NEWS.

1 p.m.—Golf tournament.

2 p.m.—Inspection trips: Ford Motor Co. Rouge plant, J. L. Hudson department store air conditioning system.

6:30 p.m.—Cocktail party.

7:30 p.m.—Dinner-dance.

WEDNESDAY, MAY 30

9:30 a.m.—Registration.

10 a.m.—Third technical session, Vice President R. C. Johnson presiding.

"The Physical and Chemical Characteristics of Shredded Redwood Bark Fiber Insulation," Edward Simons, consulting engineer.

"Further Experience with Refrigerated Greenhouses," A. J. Hess, partner, Hess, Greiner, and Polland.

"Solubility of Air in 'Freon,'" H. N. Parmelee, research chemist, E. I. du Pont de Nemours & Co.

Detroit May Convert Water Heaters--

(Concluded from Page 1, Column 4)

number about 8,000 in the city itself.

The bureau of safety engineering has drawn up a sheet of instructions showing what needs to be done to safely shut off the various types of domestic water heating equipment so the water in the storage tank may be drawn off at the drain cock.

By following these instructions the explosion hazards that would be present if the heating system continued to operate while the system was being used for water storage only will be eliminated.

When the plan is approved, the bureau is ready to hold meetings of small groups from the cooperating organizations who will then act as instructors to teach other members what to do.

As soon as this information has been absorbed by members of cooperating organizations, they are expected to be tied in with the block air raid warden system so that they will be responsible for instructing the people in the section assigned as to how to shut off the cold water supply to the tank and cut off its heat input.

These persons will also have the responsibility to determine as nearly as possible that the necessary valves and controls are in effective operating condition, that the tank can be drained, and the valves and controls are tagged with proper identification so that they might be operated by any child able to read. (It was noted that this was an extreme case, but children in school quickly learn to follow printed instructions if care is taken in their teaching.)

John C. Rehard, chief safety engineer, listed the local refrigeration and air conditioning organizations that have expressed willingness to cooperate in this plan as the following:

Refrigeration Contractors Association of Detroit, National Association of Practical Refrigerating Engineers, Refrigeration Service Engineers Society, Air Conditioning Institute, and Detroit Warm Air Heating Association.

He said that he also received a letter from one of the large local breweries offering to turn over its "sparge" tank, which contains 1,500 barrels of water for heating purposes, for such emergency use. The letter suggested that all breweries have such "sparge" tanks and expressed confidence that they, too, would be willing to cooperate.

Mitchell Supplies Room Cooler Units for 'Stop the Music'

CHICAGO — Mitchell Mfg. Co.'s model M-341 room air conditioner is one of the featured jackpot awards on the famous "Stop the Music" television show, it was reported by E. A. Tracey, vice president in charge of Mitchell's air conditioning division.

The jackpot, one of the most fabulous ever collected, is given by Master of Ceremonies Bert Parks to the guesser of a "Mystery Tune" played each Thursday evening on the show which is seen on the entire American Broadcasting Co. television network.

Two Producers See No Roll-Back of Prices

WASHINGTON, D. C.—Two major appliance manufacturers have already announced that Ceiling Price Regulation 22 will cause no reduction in the prices of their products.

General Electric Co. notified its distributors by telegram that the new regulation would cause no reduction in the prices of the company's home laundry and refrigeration equipment.

"On the contrary," the telegram said, "it appears under the terms of the regulation, some increase in price is justified by our cost increases."

Bret C. Neece, vice president of Landers, Frary & Clark, declared "Our existing schedules of prices are well within the new maximum ceiling prices which are permitted under CPR 22.

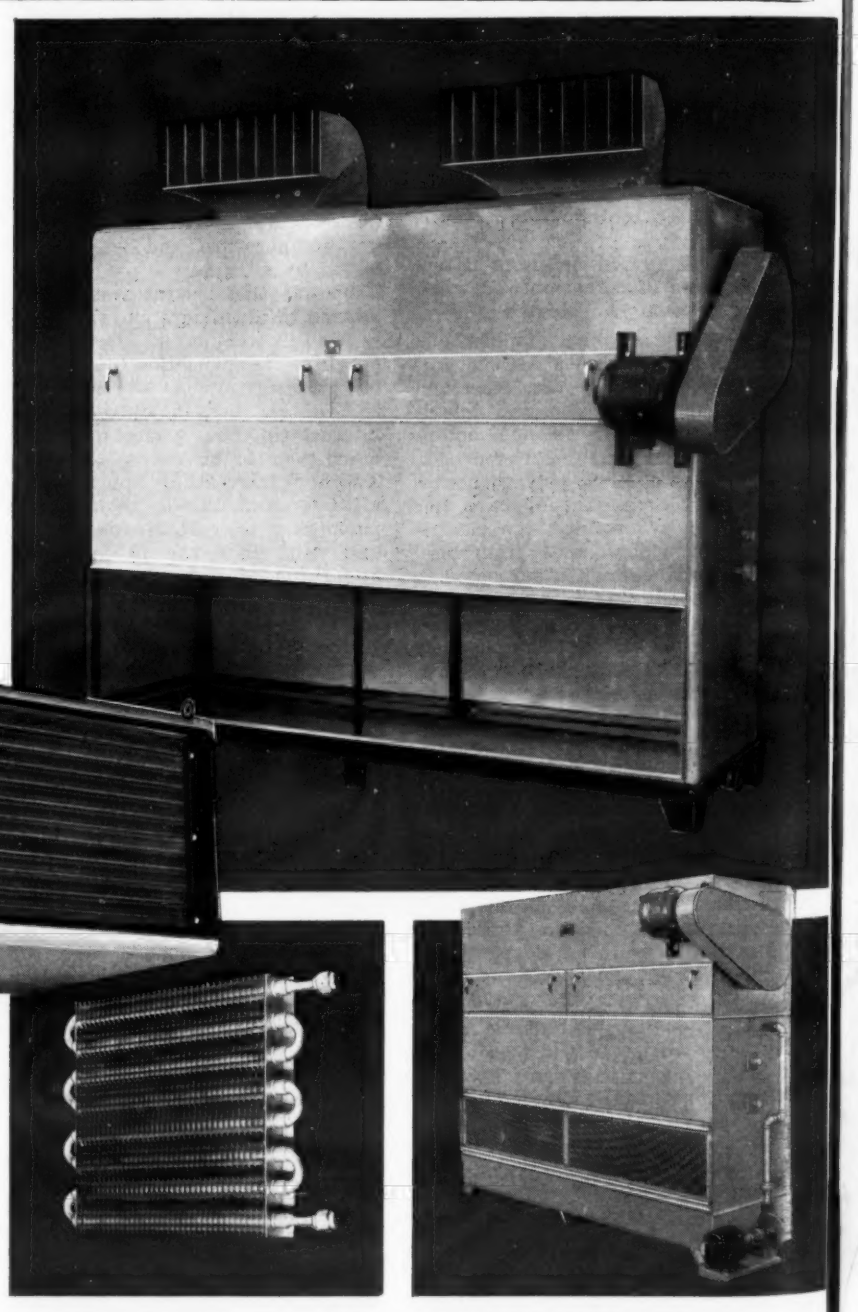
"Our new schedules which will be issued on May 28 probably will show no changes in the prices in effect today. Therefore, distributors and dealers will not lose through a depreciation of inventories in their stocks."

Meanwhile, the Office of Price Stabilization has issued 17 interpretations of its CPR 22 order. Each is intended to clarify some small detail that has caused some confusion in the trade.

Items covered include freight rate increases, general limits of exemption, sales at wholesale and retail, election to use the regulation, base period payroll, maintenance costs, conversion steel, use of section 18 (C), and long term contracts subject to price revisions.

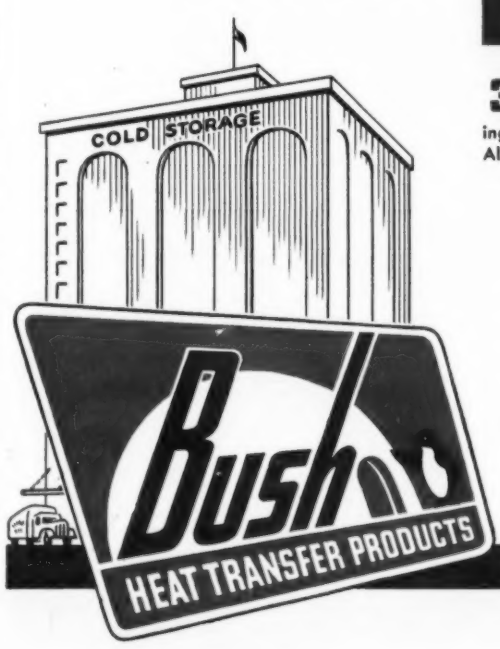
We've put your profits in

COLD STORAGE



1 BUSH HEAVY DUTY FLOOR TYPE COOLER is built in two sections for quick, easy installation. Available in capacities of 24,000 - 96,000 BTU/HR at 10° TD above 32° and 24,000 — 90,000 BTU/HR at 10° TD below 32°.

2 BUSH HEAVY DUTY CEILING TYPE COOLER is the last word in scientific design and efficient operation. Easy to install . . . readily accessible for service. Available in capacities of 24,000 - 48,000 BTU/HR at 10° TD above 32°.



3 BUSH FIN COILS are supplied in various models, lengths and fin spacings. Aluminum fins on tinned copper tubes. Also steel galvanized for ammonia.

4 BUSH EVAPORATIVE CONDENSER is supplied in capacities of 5 - 75 tons . . . with continuous tubing . . . centrifugal pumps . . . fibreglass eliminator sections (20 - 75 tons).

BUSH Cold Storage Units produce more profit for you because their expert design and engineering, their top quality materials fabricated to rigid specifications, their careful testing and accurate rating mean easier selling, faster installation and less service . . . more customer satisfaction. Get acquainted with the BUSH Factory Representative in your territory . . . a good man to know.

Buy the Best-and the Best is Bush

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